



ANNUAL REPORT

ON THE

HEALTH

OF THE

Borough of Chesterfield

FOR 1913,

BY

F. A. SHARPE,

M.D. Lond., B.S., D.P.H.,

MEDICAL OFFICER OF HEALTH.

CHESTERFIELD:
BRAYSHAW & BATEMAN, LOW PAVEMENT.
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BOROUGH OF CHESTERFIELD.

HEALTH COMMITTEE, 1912-13.

Chairman :

Councillor W. B. ROBINSON.

Vice-Chairman :

Councillor EDMUNDS, J.P., C.C.

Members :

THE MAYOR (Councillor W. B. Robinson).
Alderman BOOTH, M.D., J.P. Councillor LACK.
" HADFIELD, J.P., C.C. " LANCASTER
Councillor CLARK, C.C. " SHORT.
" EYRE, J.P. " WOODHEAD
" GLOSSOP. " HODKIN.

HEALTH COMMITTEE, 1913-14.

Chairman :

Councillor W. B. ROBINSON.

Vice-Chairman :

Councillor EDMUNDS, J.P., C.C.

Members :

THE MAYOR (Alderman E. Shentall, J.P.)
Alderman BOOTH, M.D., J.P. Councillor LACK.
" HADFIELD, J.P., C.C. " LANCASTER
Councillor CLARK, C.C. " SHORT.
" EYRE, J.P. " WOODHEAD
" GLOSSOP. " HODKIN.

Medical Officer of Health :

F. A. SHARPE, M.D., B.S. Lond., D.P.H.

Inspector of Nuisances :

CHARLES E. WOOD, C.S.I.

Assistant Inspectors of Nuisances :

A. S. CARTER, C.S.I. C. E. BROWN.

Health Visitor :

Miss M. JONES, C.M.B.

Tuberculosis Health Visitor :

Miss LERESCHE.

Clerks :

A. BIRKBECK. Miss H. COLE.

Veterinary Inspector :

FRANK B. PEARSON, M.R.C.V.S.

LIST OF ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.

Infectious Diseases (Notification) Act 1899, adopted	Oct., 1890.
Infectious Diseases (Prevention) Act, 1890	„ Nov., 1890.
Public Health Acts Amendment Act, 1890	„ Mar., 1891.
Private Street Works Act, 1892	„ Mar., 1893.
Parts 3, 4, 5 and 6, and sections 15 to 25, and 27 to 33 of Part 2, and 94 and 95 of Part 10 of the Public Health Acts Amendment Act, 1907	... „ Mar., 1910.
Notification of Births Act, 1907	... „ Nov., 1907.

LOCAL GOVERNMENT ACT, 1894.

Powers conferred upon the Council by the Act.

- The Granting of Pawnbrokers' Certificates.
- The Licensing of Game Dealers.
- The alteration of dates of Fairs.
- The duty of protecting public right of way.

Powers conferred by the Local Government Board.

- To appoint Overseers.
- To appoint and revoke the appointment of Assistant Overseer.
- The Powers of a Parish Council as to Charities.

PRIVATE ACTS.

- The Chesterfield Corporation Markets Act, 1873.
- The Local Government Board's Provisional Order Confirmation (No. 14) Act, 1892 (Borough Extension).
- Electric Lighting Orders Confirmation (No. 1) Act, 1894
- The Chesterfield Improvement Act, 1901.
- The Chesterfield Corporation Tramways and Improvement Act, 1904.
- The Local Government Board's Provisional Orders Confirmation (No. 6) Act, 1910 (Borough Extension).
- The Chesterfield Corporation Railless Traction Act, 1913.

*To the Chairman and Members of the Public Health
Committee of the Borough of Chesterfield.*

GENTLEMEN,

I have the honour to submit to you the Annual Report on the health of the Borough for the year 1913.

The most prominent feature is the large increase in the population, not by means of an increased birth rate, for that figure is only fractionally higher than the lowest recorded in 1910; neither is the increase due to a diminished death rate, for that figure has only been twice exceeded since 1902. The increase is solely due to immigration from surrounding districts.

The sanitary condition of Chesterfield is far from satisfactory. In order to improve this there is required:—

- (1).—Abolition of the privy midden system, and its conversion into the water carriage system.

There are two thousand middens in the Borough, to which four thousand privies are attached. The case against the privy midden system is now complete, and no further evidence is required as to its baneful effect on the health of the community, more particularly that portion of the community of tender years.

A large number of privy middens are actual nuisances in that they are in a state of disrepair, or are too near dwelling-houses. These are being dealt with as nuisances by conversion into water closets. In the remainder a contribution from the Council will be necessary.

I should urge your Committee to consider the question of conversion at an early date.

Further, there are over two hundred waste water closets in the Borough. I consider this form of convenience almost as liable to give rise to nuisances as the privy midden. The plans of new houses which show this type should not receive the sanction of your Committee.

(2).—In the case of conversion, the use of the existing midden as an ashpit should be forbidden, and a covered dustbin substituted. Powers are being sought in the Corporation Bill now before Parliament to secure this end.

There has been a serious outbreak of diphtheria during the year. Fortunately the number of scarlet fever cases was only half the average, otherwise it would have been impossible to have found the necessary hospital isolation for the former disease.

The most hopeful action which has yet been taken in measures affecting the public health has been the establishment of the Tuberculosis Dispensary at Chesterfield. The completion of the scheme by the erection of the sanatorium at Walton, and the hospital for advanced cases at Penmore Isolation Hospital will be awaited with lively anticipation of its usefulness.

In conclusion, I beg to acknowledge the help given by the Corporation Officials, and the kindly consideration shewn by your Committee.

I am,

Your obedient servant,

F. A. SHARPE.

SUMMARY

OF ANNUAL

HEALTH REPORT FOR 1913.

BOROUGH OF CHESTERFIELD.

Area—Land, less inland water, 2625 acres ; inland water 18 acres ; total 2643 acres.

Altitude (average)—About 300 feet above ordnance datum.

Population. Census for 1911—37,406. Separate occupiers or families—7711.

Estimated Population, June 30th, 1913—39,594.

Occupied Houses 8,075.

Rateable Value—£138,289

General District Rate— $\frac{3}{8}$ in the £.

Poor Rate— $\frac{4}{11}$ in the £.

VITAL STATISTICS, 1913, per 1,000 living.

Birth Rate—27·5

Crude Death Rate—18·5

Death Rate(Corrected)—16·9

Epidemic Diseases Death Rate—0·99.

Phthisis *do. do.*—1·06.

Other Tubercular Diseases Death Rate—0·56.

Respiratory Diseases *do. do.*—2·65.

Infant Mortality, per 1,000 Births—143

Isolation Hospitals—Penmore Isolation and Small Pox Hospitals.

Water Supply—From Linacre Reservoirs and Holymoorside Whispering Well.

TABLE.—METEOROLOGICAL RECORD, 1913.

Rain Gauges, 5 inches in diameter at Gas Works, and 8 inches at Linacre Reservoir, 1 foot above ground ;
 279 feet above sea level at Gas Works, and 500 feet at Linacre Reservoir.
 Temperature taken in shade and 4 feet from the ground.

MONTH.	Temperature of Air during Month.			Mean Temperature of Air.	Rainfall.						
	Highest.	Lowest.	Mean of		Number of Days on which Rain Fell.						
			All Highest						All Lowest.		
January ..	52	15	42·96	32·51	37·73	Gas Works. 14	Linacre Reservoir. 17	Sewage Works. 18	Amount Collected in inches. Gas Works. 4·09	Linacre Reservoir. 4·59	Sewage Works. 3·72
February ..	54	20	46·03	32·64	39·33	12	14	12	98	1·47	1·10
March ..	57	25	48·67	34·74	41·70	17	23	21	3·57	4·74	3·73
April ..	67	25	54·13	37·76	45·94	15	18	18	2·95	3·54	2·98
May ..	78	32	61·58	43·29	52·43	12	15	11	2·50	2·08	2·14
June ..	81	39	67·13	47·2	57·16	7	12	8	·44	·81	·41
July ..	79	40	66·09	50·70	58·39	9	10	9	1·23	1·38	1·20
August ..	84	36	67·80	48·16	57·98	6	7	6	1·62	1·76	1·83
September ..	78	35	65·4	48·16	56·78	14	15	13	2·24	2·25	2·11
October ..	66	28	57·13	44·0	50·56	12	16	11	3·86	3·85	3·07
November ..	57	29	52·13	39·5	45·81	16	20	16	2·49	3·07	2·83
December ..	55	13	44·32	35·80	40·06	9	12	8	1·12	1·60	1·30
Entire Year ..	84 (a)	15 (b)	56·11	41·20	48·65	143	179	151	27·09 (c)	31·14 (d)	26·42 (e)

(a) August 3rd. (b) January 14th. (c) Greatest amount on one day '93 on October 7th.
 (d) Greatest amount in one day, 1·65 inches on January 11th, '99 inch on October 7th.
 (e) Greatest amount on one day, 1·35 inches on January 11th.

REPORT

A.—NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

(1) **PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.**—The area of the Borough previous to November 9th, 1910, was 1,216 acres, 18 of which are covered by water ; that of the Extended Borough is 2,643 acres.

The greater part of the town is built upon a tongue of land projecting in an easterly direction from the high land of Newbold and Dunston into the valley of the Rother, the remainder being situate to the North, east and south of this in the valleys of the Hipper and the Rother, which join here after the Rother has received the Muster brook. The joint stream discharges into the disused Chesterfield and Stockwith Canal, which overflows in time of heavy rain into its former course, which contains little but the effluent from the sewage disposal works at other times

The geological formation is clay overlying the trias sandstone of the coal measures, but to the north the surface is largely composed of stones lying in alluvial soil, while most of the West Ward stands on alluvial deposits.

The Old Borough was divided for electoral purposes into three wards—the North, chiefly residential and mercantile, containing the Chesterfield and North Derbyshire Hospital and the Union Workhouse, and the South and West, which contain the principal factories and works.

The extended Borough is divided into four wards—the Central, comprising the principal portion of the old South Ward, and parts of the old North and West Wards; the North, made up of the greater part of the old North Ward and the added Newbold and Dunston area; the South Ward, consisting of the smaller part of the old South Ward and the added Calow and Hasland areas; and the West, including the added area of Brampton and Walton and all the old West Ward except its easterly portion.

The town is a busy one and rapidly increasing. It is served by three lines of railway, two of which now belong to one company, and is the centre of an important colliery and agricultural district.

Large numbers of people enter the town for shopping and recreative purposes by the electric tramway (which is the property of the Corporation), motor omnibuses, and the very numerous waggonettes which ply between the town and surrounding villages.

The main industries are the coal and iron trades, but there are several large mills, engine works, potteries, breweries and tanneries. The shops are very numerous and better than are usually found in a town of this size. The Corporation have now obtained Powers to instal a system of Trackless Trams and Motor Buses to further connect the Borough with adjacent districts.

(2) **THE POPULATION.**—Further details as to the census of 1911 are available in Volume VIII, published in July, 1913, and relate to the Tenements in the occupation of private Families.

The following table gives details for the Borough, and may be read as follows, *vide* Vol. VIII:—

Tenements in Occupation of Private Families in the Borough of Chesterfield, March 31st, 1911.

	Number of Rooms per Tenement.	Number of Persons in Private Families.															Total Number of Private Families.	Population in Private Families.
		Number of Private Families.																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 and upwards.		
Total Population:— 1911. 1901. 37406. 32335.	1	8	5	1	—	—	—	—	—	—	—	—	—	—	—	—	14	21
	2	48	51	36	17	5	3	—	—	—	—	—	—	—	—	—	163	390
	3	13	68	72	57	50	32	24	7	4	2	2	—	—	—	—	331	1337
Total Families or Separate Occupiers, Private or other:— 1911. 1901. 7711. 6319.	4	54	368	567	533	437	282	208	121	55	21	11	1	—	—	—	2658	11762
	5	19	271	431	491	358	297	205	118	71	67	27	4	7	—	—	2366	11514
	6	12	161	216	222	214	155	99	68	44	38	15	17	3	3	2	1269	6363
	7	3	46	75	69	82	48	39	16	12	10	3	4	2	1	—	410	2024
Tenements with more than two occupants per room:—	8	—	9	33	46	42	20	19	16	5	6	4	1	—	1	—	202	1067
No., 185. Pop., 1754.	9	1	7	15	22	20	13	9	6	3	5	1	—	1	1	—	104	552
	10 and upwards.	—	1	14	16	38	24	16	17	7	4	4	3	1	1	—	146	900
Proportion per cent. to Population in Private Families, 4'9.	Totals	158	987	1460	1473	1246	874	622	369	201	153	67	30	14	7	2	7663	35930

Of a total of 7,711 families or separate occupiers enumerated in Chesterfield, 7,663 were private families, and of these 14 were enumerated in tenements of one room, 163 in tenements of two rooms, and so on. The 14 families enumerated in tenements of one room included eight consisting of one person each, five consisting of two persons each, and so on, and contained an aggregate population of 21 persons.

An examination of this table shews that roughly five-sevenths of the population live in four and five-roomed tenements, and that there are 185 tenements with more than two occupants per room, housing 1,754 persons. It should be noted that the proportion per cent. of overcrowded families to population in private families is 4·9. In England and Wales the proportion is 9·1. In Urban Districts 7·4, in Rural Districts 6·5, and in Derbyshire (exclusive of the County Borough) 5·3.

An interesting table is given shewing that Derbyshire has only 9·5% of tenements with less than four rooms, 78·8% of tenements with from four to six rooms (the highest proportion among the Counties of England and Wales, the average proportion being about 60%), and 11·7% of tenements of over six rooms.

In considering the bearing of these figures on the present day population, it must be remembered that in 1911 there were 235 houses unoccupied; in 1912, 132; and on June 30th, 1913, 117; of which only 59 were to be had at a weekly rental of 5/- per week and under. Towards the end of the year complaints as to the difficulty in obtaining working-class houses were made, so that the good conditions of housing which prevailed at the Census do not necessarily describe the conditions of to-day.

Population in the Middle of 1913.—Estimated by the natural increase—that is, the excess of births over deaths—the population is 38,250. No account is taken here of immigration and emigration. Estimated according to the method of the Registrar-General, which assumes that the population increases or decreases in a geometrical ratio in any intercensal period at the same rate as in a previous one, the figure is 38,650. Calculated by new houses certified for occupation, less those houses closed, since the Census, plus the difference between houses empty at Census and empty on June 30th, 1913, and corrected for large institutions, the figure is **39,594**, which is used as the basis of the rates in this report.

The population is divided as under (the figures given being approximate only), and calculated on the presumption that the number of empty houses at the Census in the various Wards was in the same proportion as in June, 1913:—

WARDS.							
North.		South.		West.		Central.	
9318	...	9213	...	11118	...	9945	

It is impossible to give any details as to the number of marriages in the Borough, as the area for registration is the Poor Law Union, which includes a large area around the Borough.

The same applies to figures relating to Poor Law Relief. In the middle of the year there were 421 inmates in the Workhouse, and 80 patients in the Chesterfield and North Derbyshire Hospital. I am indebted to Mr. Sunnuck for the following table, showing the steadily increasing use made of the Hospital:—

YEAR.		In-patients treated.		Out-patients treated.
1902	...	490	...	2103
1903	...	580	...	2390
1904	...	618	...	2701
1905	...	653	...	3764
1906	...	763	...	3944
1907	...	921	...	4193
1908	...	866	...	4725
1909	...	897	...	4687
1910	...	1091	...	5540
1911	...	1102	...	4895
1912	...	1225	...	4716
1913	...	1212	...	5059

B.—SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.—Water is supplied by the Chesterfield Gas and Water Board, whose area of supply includes the Borough, the Urban Districts of Whittington and Newbold, Brampton and Walton, and part of the Chesterfield Rural District. The area supplied is 24 square miles in extent.

The greatest part is collected on a gathering ground above the Linacre Reservoir of 1,386 acres, but there are other works as given below, while a small supply can be obtained in time of need from the mains of the Chesterfield Rural District Council.

Capacity of Reservoirs, 247,746,000 gallons.

Lowest quantity stored during the year, 106,131,000 gallons.

In 1912 the lowest quantity was 209,279,000 gallons.

Present daily consumption, 1,170,000 gallons.

Number of houses supplied, 14,551.

The water contains too much vegetable matter to be considered a first-class supply, but is adequately-filtered. For some years the plumbo solvency of the High Level Supply has been the subject of comment. The matter is fully dealt with in the Report for 1912. Recent tests shew that there is no diminution of this dangerous quality.

Sewage Disposal.—The average dry weather flow is 742,440 gallons per diem, as compared with nearly a million and a quarter before the leaks in the sewers were sought for and repaired. The maximum flow is about three and a half million gallons. The sewage, in reaching the Works, passes through a silt chamber, duplicated, where the diminished rate of flow permits of the deposition of the heavier solid matter in suspension. It then goes through a screen which removes the large floating and suspended matter, and enters the septic tanks. These are open, three in number, and have each a capacity of 223,200 gallons; two are in use at once while a third is being cleaned. The solid organic constituents of the sewage are liquified in these, from which the sewage flows to the pumping station, where it is raised by a pump to a sufficient height to allow of its flowing by gravitation to the filters. These are 20 in number, and have a cubic capacity of, roughly, 45,000 cubic yards, capable, at a rate of 84 gallons per cubic yard, of purifying 3,780,000 gallons of sewage per diem. This accounts for three times the dry weather flow. There are two storm-water filters, on to which excess amounts over three times and under six times the dry weather flow are treated. Amounts over six times the dry weather flow were run direct into the old river bed, from which the river water has been diverted above the Sewage Works into the canal. As this is dry in summer, the river bed, consisting of a deep layer of putrefying mud, has been the cause of many complaints as a nuisance. At the present time a tank is being constructed of 100,000 galls,

capacity in order to allow sedimentation of the storm-water overflow before reaching the old river bed.

The steam power for pumping the sewage is generated by the refuse destructor, the clinker from which supplies the filtering medium. The sludge from the tanks is mixed with lime and sold to farmers.

Septic tanks and percolating filters are provided at Hasland, near the Penmore Hospital, and at Calow Lane for the districts of Mansfield Road, Hasland Green, and Calow Lane. These works are satisfactory, but will in all probability be replaced by an intercepting sewer down the Spital Valley brook.

House Refuse.—The house refuse removed during the year ending 31st December, 1913, amounted to 19,129 loads, against 17,062 loads, an increase of 2,067 loads. 12,982 loads, or 67 per cent. of the refuse, passed through the destructor at the Sewage Disposal Works; the remaining 6147 loads were deposited on tips in the district.

The cost of removing the refuse amounted to £2,500 3s. 10d., against £2,208 8s. 3d. for the year previous, or an increase of £291 15s. 7d. Taking the number of tenements as 8,192, the average cost per tenement is 6s. 0 $\frac{3}{4}$ d., as compared with 5s. 8d. for 1912, the cost per thousand inhabitants being £63, as compared with £57 last year.

Much of the refuse from privy middens was removed in skeps, and deposited direct in carts, thereby reducing the soiling of the street surface. This method, to a small extent, reduces the nuisance caused by the emptying, but it is impossible to avoid creating a nuisance during the process.

Tenements having portable dustbins are emptied weekly during the daytime, while those having middens or ashpits are emptied during the night.

Sanitary Inspections of the District

Summary of Sanitary Inspector's work.

Nature of Cases dealt with.	Ward.				Total
	North.	South.	West.	C'tral.	
Visits to houses infected with Phthisis	32	17	47	46	142
Ditto other Zymotic diseases ...	67	71	181	75	394
Inspection of dwelling-houses ...	163	90	235	148	636
" of factories	32	8	42	56	138
" of workshops	61	18	60	94	233
" of premises used for offensive trades	33	15		57	105
" of slaughter-houses ...	39	31	149	145	364
" of cowsheds and dairies ...	45	43	65	82	235
" bakehouses	31	3	42	117	193
" common lodging-houses ...	29		15	70	114
" drainage of new houses ...	84	62	107	53	306
Re-Inspection of work in progress ...	432	287	498	524	1741
Total Inspections ...	1048	645	1441	1467	4601
Houses disinfected after Phthisis ...	17	16	17	17	67
Houses disinfected after other Zymotic diseases	44	37	78	37	196
Number of notices issued for abatement } formal	26	15	30	17	88
of nuisances } informal	90	55	105	108	358
Houses repaired	39	31	44	47	161
" cleansed and limewashed ...	13	15	16	12	56
" overcrowded	6	5	10	8	29
Waste pipes defective	11	14	13	17	55
Defective and obstructive drains ...	28	25	21	43	117
" traps and drain inlets ...	53	42	32	62	189
Insanitary privies and middens ...	19	20	32	24	95
Insufficient closet accommodation ...	2		1	3	6
Privies converted into water closets ...	64	3	104	34	205
Water closets defective	16	1	11	17	45
Yard surfaces repaired	37	34	29	30	130
Eaves and downspouts	17	15	10	12	54
Urinals	1	1		2	4
Animals improperly kept	1	2	1		4
Offensive Accumulations	15	8	22	15	60
Total	322	216	346	326	1210

Summary of Sanitary Work of Recent Years.

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Houses closed by Magistrate's Order	3	...	...	...
Houses closed after formal notice	2	5	11	5	..	4	14	30
Houses closed after informal notice	...	2	1	2	1	2	1	2	2	2
Houses demolished or disused	1	3	11	29	5	31
Houses made fit for habitation	..	12	42	13	10	35	33	9	13	16
Houses repaired	..	45	35	29	80	22	156	143	65	161
Yards repaired	...	66	81	34	88	108	90	95	54	130
Overcrowding	..	16	24	25	27	21	30	42	28	29
Houses inspected	..	909	785	1393	1125	1174	1016	1219	996	636
Conversion of Privy Middens	...	7	19	24	31	41	64	111	147	205
Formal	} Notices served for the abatement of Nuisances.	151	187	28	47	150	139	216	96	446
Informal		331	368	316	289	475	867	915	617	358

Common Lodging Houses.—There are 11 on the register. They were frequently inspected by the Police and Sanitary Officer, and found in a satisfactory condition. The keepers have been notified of the occurrence of cases of small-pox within a near distance of Chesterfield, so that the Sanitary Authority may be notified of the arrival here of contacts.

Schools.—The Medical Officer of Health is also the Medical Officer to the Education Committee. The work of School Medical Inspection is reported on elsewhere.

Food and Drugs.—One hundred and six samples of food were sent to the Borough Analyst, Mr. C. G. Scott-Smith, who reported that three of the samples of milk did not comply with the standard suggested by the Board of Agriculture. One of the samples contained added water, and two were deficient in fat.

NATURE OF FOOD.	Number of Sampl's obtain'd	Number Genuine	Not Genuine	Prose- cutions.	Convic- tions.	Dis- mis- sed.	Cauti'ns
Milk	48	45	3	1	1	..	2
Butter	30	30	..	..	..	..	..
Cheese	5	5	..	..	..	..	..
Lard	4	4	..	..	..	..	..
Margarine ..	4	4	..	..	..	..	..
Preserved Cream	3	3	..	..	..	..	..
Pepper	2	2	..	..	..	..	..
Baking Powder..	3	3	..	..	..	..	..
Mustard	3	3	..	..	..	..	..
Cocoa	2	2	..	..	..	..	..
Milk of Sulphur	1	1	..	..	..	..	..
Total	106	103	3	1	1	..	2

PROSECUTIONS, 1913.

Date.	Number of Sample.	CHARGES.	Result.	Penalty	Costs.
6th Nov.	346	Selling Milk containing 7·7 per cent. added water ..	Con- victed	£ s. d. 0 10 0	£ s. d. 1 1 0

Of the two samples certified as adulterated, No. 346 contained 7·7 per cent. of added water. Two other samples, Nos. 282 and 333, were deficient in milk fat to the extent of 6 and 13 per cent. respectively. Upon receipt of the Analyst's Certificates, I visited the cowsheds and obtained samples after seeing the cows milked. The appeal samples, Nos. 286 and 342, were found to be deficient in milk fat to the extent of 13 per cent. and 4·6 per cent. respectively.

The Vendors, both of whom were cowkeepers in a small way, were then advised to change a portion of their stock. They consented to do so, and further samples obtained were found genuine in each case. Eleven of the samples were purchased informally by agents, all of which proved to be genuine.

No samples have been dealt with other than by submission to the Public Analyst.

**Report for the Year Ending 31st December, 1913,
upon the
Administration of the Milk & Cream Regulations, 1912.**

1.—Milk and Cream not sold as Preserved Cream.

	(A). Number of Samples examined for the presence of a preservative.	(B) Number in which a preservative was reported to be present.
Milk	48	0
Cream	1	0

2.—Cream Sold as Preserved Cream.

(A) Number of Samples submitted to the Borough Analyst to ascertain if the statements on the label as to preservatives were correct:—

(i). Correct statements made	3
(ii). Statements incorrect	0
	—
Total	3
	—

(B) Determinations made of milk fat in cream sold as preserved cream:—

(i). Above 35 per cent.	3
(ii). Below 35 per cent.	0
	—
Total	3
	—

Each of the Samples obtained complied with the requirements of Public Health (Milk and Cream) Regulations, 1912.

The following is a summary of the work of the last ten years:—

	No. of samples taken	Number Genuine.	Number adulterated.	Percentage adulterated.	Cautioned	Prosecutions	Total Amount of fines and costs imposed.
							£ s. d.
1904	60	58	2	3'3	1	1	1 9 0
1905	80	79	1	1'2	...	1	1 1 6
1906	79	74	5	6'3	3	2	2 6 0
1907	80	76	4	5'0	3	1	dismis'd
1908	83	80	3	3'6	2	1	2 3 0
1909	85	82	3	3'5	...	3	1 18 6
1910	83	77	6	7'2	1	4	7 17 6
1911	105	101	4	3'7	..	4	10 17 6
1912	104	99	5	4'8	1	4	4 9 6
1913	106	103	3	2'7	2	1	1 11 0

Slaughter Houses.—There are 30 registered for the slaughter of cattle, sheep and pigs, seven of which are the property of the Corporation. They have been regularly inspected and found satisfactory.

Dairies, Cowsheds and Milkshops.—There are 23 cowsheds in the Borough, housing 140 cows. The sheds have been frequently inspected by the Medical Officer of Health and the Sanitary Inspector. All the cows have been examined by the Veterinary Inspector, who reported that all the animals appeared to be in a healthy condition. Twelve milkshops have been regularly inspected and no complaint made except as to neglect of keeping the milk bowl covered, a most important detail which is frequently overlooked by the shopkeepers.

Preparation of Food.—During the year all premises used for the preparation of food were inspected. Bye-laws for the control of fried fish shops have been adopted by the Council. Powers are being sought in the Corporation Bill, 1914, for making bye-laws controlling all food-preparing premises. In 9 cases slaughter houses, occupied by small traders, are used occasionally for the chopping up and the boiling of food; although many of these premises are regularly cleansed, there is an element of danger in this practice, which should not exist. Food should not be made up in forms where offensive matter is handled.

Twenty-two bakehouses are all used jointly for bread baking and confectionery and are in a satisfactory condition. All are on the ground level.

The food in the Market Place was regularly inspected. There were surrendered $5\frac{1}{2}$ cwt. of cod, $\frac{1}{2}$ cwt. of halibut, 1 stone of fresh herrings, 4 stone 10 lbs. of prawns, 1 barrel of crabs, 2 bags of mussels, 1 bag of cockles, 10 tins of fish, 41 tins of fruit, 7 hampers of kidney beans, 2 sacks kidney beans.

Housing.—Most of the houses occupied by the artizan class are two stories in height and separate tenements.

The through houses occupied by the better class of artizan vary much in plan from the simple 4-roomed tenement, having a living room at the front and scullery at the back, with stairs between the two rooms, all under one roof, to the more elaborate plan giving a scullery and another bedroom under another roof at the back.

The back-to-back houses in the town were the subject of a special report. There are five blocks, the houses are three stories in height, and contain a living room, and scullery at the side of living room, on the ground floor, and two bedrooms on the first floor.

In the Low Pavement area the shops fronting the Market Place were at one time high-class residences with narrow gardens (the width of the houses) running down to the river Hipper. As these dwellings became used for commercial purposes, the gardens were built upon, with the result that the area became closely packed with small artizan dwellings, running in long rows down to the river, separated from the neighbouring parallel rows by a narrow passage, in some cases not wide enough to admit a horse and cart. The sanitary conveniences consisted of huge blocks of privies, which were placed either between two adjacent dwellings or were isolated by a narrow cross passage. It is years since any new property, with the exception of frontage, was erected in this area, and 109 houses have been either voluntarily closed or have been closed by the Council during the last 18 years. At the present time the special sanitary problems in this area are those due to lack of ventilation, lighting and difficulty of adequate cleansing, as the state of the buildings, necessity for repairs, yard surface and drainage, etc., are equal to property having a similar rental in other parts of the town.

The type of houses in this area may be described as a single house, having only one entrance and without cross or through ventilation. They contain a living room with a small scullery at the back or at the side, in which the stairs are often fixed, and have a large and small bedroom. The space under the stairs usually does duty as a pantry. Powers under the Corporation Bill are being sought for the compulsory provision of properly lighted and ventilated places for food storage in all new houses.

A good improvement has been effected in the standard of the housing conditions by the construction of a new street through this area. It has opened out the lower end of the yards, and demolished a number of houses the type of which are too common in the Borough.

The construction of the road running from the Market Place, commencing on the site of the Three Tuns Inn, and opening in Markham Street opposite the main entrance to the Cattle Market, has further opened out this neighbourhood. A cross street running from Wheeldon Lane to South Street has been suggested.

If the opening out of this area by means of these streets is done, the area would be sub-divided into small areas which could be more easily dealt with.

An undesirable feature in the older parts of the town is the tunnel entrances to courts (as seen in St. Mary's Gate). The opening of the court is made at the expense of the living room of the house or houses forming the entrance, the covering being formed by the floor of the bedroom. The arrangement very materially affects the free air space and ventilation of the houses in the courts.

Further, small dwelling-houses having a frontage in a street that has become a shopping street are converted into lock-up shops in the front, the backs of the houses being let off as separate dwellings. In some cases there is practically no space at the back, and through ventilation has been destroyed by bricking up the old communications from the front to the back of the house.

I should also call attention to the demoralizing effect of the common yard. Apart from some of the oldest houses in the Borough where there is no yard at all other than the narrow court which forms the approach there is a large class of property in which the accommodation at the back consists of a narrow paved footway and an unpaved area common to all the houses in the row. This space is a "No Man's Land" belonging to no occupier in particular; there is no care taken that it shall be kept in a clean condition, and on a nuisance arising every occupier denies authorship. There is no privacy and the lack of incentive to cleanliness and tidyness outside makes its effects felt inside the house. A smaller yard belonging to two houses only which is properly ashphalted is infinitely preferable to the large unpaved common yards which are degrading some of our housing to-day

Another point to which attention should be directed is those yards giving access to works upon which dwelling-houses open. In some cases these yards are properly paved; in some, however, where there are several owners, liability is denied and the means of access to the houses become quagmires.

Houses Empty June 30th, 1913.

RENTS.	North Ward.	South Ward.	Central Ward.	West Ward.	TOTAL
3/6 per week (Rates inclusive) ..	..	..	..	1	1
3/9 " " ..	1	..	..	..	1
4/- " " ..	1	2	..	7	10
4/2 " " ..	..	..	..	..	..
4/6 " " ..	9	10	..	4	23
4/9 " " ..	..	1	..	6	7
5/- " " ..	2	7	..	8	17
5/3 " " ..	..	..	..	1	1
5/6 " " ..	2	1	1	5	9
5/9 " " ..	..	..	..	1	1
6/- " " ..	..	..	..	1	1
6/6 " " ..	2	..	..	1	3
7/- " " ..	..	..	..	..	..
7/3 " " ..	..	..	..	..	..
7/6 " " ..	1	..	..	..	1
7/9 " " ..	1	..	..	..	1
8/- " " ..	4	..	2	..	6
8/6 " " ..	..	..	1	..	1
9/2 " " ..	..	2	..	..	2
9/6 " " ..	..	..	..	..	..
10/- " " ..	..	2	..	..	2
10/6 " " ..	..	..	..	..	..
£ s. d.					
13 0 0 per year and rates..	..	1	..	..	1
18 0 0 " " ..	..	..	3	..	3
19 0 0 " " ..	3	..	..	..	3
19 10 0 " " ..	..	..	..	1	1
19 19 0 " " ..	..	..	1	..	1
20 0 0 " " ..	..	1	..	..	1
22 0 0 " " ..	3	..	2	2	7
23 0 0 " " ..	3	..	1	..	4
24 0 0 " " ..	1	..	1	..	2
25 0 0 " " ..	2	..	3	..	5
30 0 0 " " ..	..	..	..	1	1
35 0 0 " " ..	1	..	..	..	1
	36	27	15	39	117

The following tables summarise the House to House Inspections under the House and Town Planning Act:—

SOUTH WARD.

Number of houses inspec'd	STREET.	Back to Back.	Thr'ugh houses	Single houses having through vent.	Single houses having no through vent.	Number of Defects Found.	Number of W.C's.	Number of houses using Privies.
20	Alma Street ..	..	20	.	..	9	.	20
15	Derby Road ..	..	15	..	..	11	..	15
10	Storforth Lane ..	..	10	.	.	3	.	10
14	Park Street ..	..	14	..	..	12	.	14
23	Warwick Street ..	..	23	..	..	23	.	23
8	Whitehouses ...	..	8	.	.	3	..	8
90		..	90	..	..	61	..	90

CENTRAL WARD.

Number of houses inspec'd	STREET.	Back to Back.	Thr'ugh houses.	Single houses having through vent.	Single houses having no through vent.	Number of Defects Found.	Number of W.C's.	Number of houses using Privies.
11	Beetwell Street ..	..	5	3	3	8	3	8
8	Britt's Court ..	..	3	3	2	3	8	..
7	Bank Yard ..	..	..	7	.	2	.	7
13	Broad Pavement ..	2	9	2	..	5	4	9
8	Bower's Place ..	..	6	2	..	1	2	6
15	Chatsworth Road ..	..	15	.	..	7	4	11
7	Docks Walk ..	..	..	7	..	..	..	7
6	Eyre Street ..	..	6	.	.	2	..	6
5	Hipper Street ..	..	..	5	..	1	..	5
5	Lordsmill Street ..	..	1	4	..	2	..	5
13	Prince's Court ..	..	..	12	1	16	..	13
14	South Place ..	.	1	..	13	19	1	13
7	Spa Lane ..	..	..	2	5	16	2	5
16	Station Road ..	16	..	..	..	3	16	..
9	Vicar Lane ..	..	6	3	..	3	..	9
144		18	52	50	24	88	40	104

NORTH WARD.

Number of houses inspec'd	STREET.	Back to Back.	Thro'gh houses	Single houses having through vent.	Single houses having no through vent.	Numb'r of Defects Found.	Numb'r of W.C's.	Number of houses using Privies
9	Higher Albert St.	...	9	...	..	6	..	9
28	Brunswick Street	...	26	...	2	15	..	28
17	Cross Brunswick St.	..	17	..	..	9	..	17
11	Holywell Street (Shakespeare Yard)	...	2	2	7	...	...	11
5	Marsden Street ..	..	5	...	..	3	...	5
9	Canal Wharf	...	9	...	...	9	..	9
16	Albert Street	10	6	..	...	7	10	6
21	Spencer Street	2	19	...	...	17	..	21
4	Brewery Yard	...	4	...	...	1	..	4
5	Devonshire Street	..	5	..	..	1	5	...
6	Durrant Road	...	6	..	..	3	..	6
34	Sheffield Road	..	34	..	..	27	..	34
165		12	142	2	9	98	15	150

WEST WARD.

Number of houses inspec'd	STREET	Back to Back	Thro'gh houses	Single houses having through vent	Single houses having no through vent	Number of Defects Found	Number of W.C's.	Number of houses using Privies
9	Bank Street ..	..	9	...	...	4	4	5
17	Barker Lane ..	...	17	...	...	12	...	17
19	Catherine Street ..	...	19	...	...	7	...	19
81	Chatsworth Road..	...	57	21	3	53	14	67
9	Chapel Lane ..	...	7	2	...	...	5	4
16	Factory Street	...	13	2	1	21	7	9
22	Old Road ...	...	22	...	...	15	9	13
17	Shipley Street	...	17	...	...	17	...	17
10	Steam Mill Bridge	...	..	8	2	4	...	10
6	Sterland Streect ..	...	6	...	...	..	..	6
17	Victoria Street ..	...	..	15	2	3	..	17
7	Walton Lane	...	..	5	2	2	...	7
5	Walton Field Road	...	..	4	1	...	...	5
235		...	167	57	11	138	39	196

The following houses were certified as fit for occupation during the 12 months ending June 30th, 1913 :—

North.		South.		Central.		West.
18	...	79	...	21	...	60

Total since Census 1911 :—

North.		South.		Central.		West.
39	...	131	...	57	...	167

Closed by action of Health Committee, or voluntarily, during 12 months ending June 30th, 1913 :—

North.		South.		Central.		West.
0	...	0	...	2	...	1

Total since Census 1911 :—

North.		South.		Central.		West.
8	...	5	...	29	...	4

There were at the Census 7,609 occupied houses, and 235 unoccupied. There were 8,075 occupied houses, and 117 empty houses on June 30th, 1913.

Of the 634 houses inspected during the year, 161 were repaired after informal notice, and without reporting their condition to committee. The defects consisted mostly of leaking roofs and bad floors resulting from ordinary wear and tear.

Representations were made to the Council that the owners of thirty houses refused, after informal notice, to do the necessary work. Notices under the Housing and Town Planning Act were then served upon them to place the houses in a condition fit for human habitation. Of the thirty houses, 16 were afterwards repaired by the owners, six were demolished, five houses closed in 1912 were also demolished, and eight are outstanding.

In addition to these, 25 houses have been demolished five voluntarily, and 20 for street improvements.

Sanitary Conveniences.—The following table shows approximately the number and types of sanitary conveniences in each Ward :—

Ward.	Privies.	Middens.	Dry Ashpits	Portable Dustbins,	Closet Pails.	Water Closets.	Waste Water Closets.
NORTH ...	698	412	147	596	1	857	44
SOUTH ...	1416	713	54	250	9	523	8
WEST ...	1117	688	91	812	38	617	148
CENTRAL ...	560	263	198	734	9	947	32
Total ...	3791	2076	490	2392	57	2944	232

Annual Report of the Medical Officer of Health
for the Year 1913, for the Borough of Chesterfield
on the Administration of the Factory and
Workshop Act, 1901, in connection with Factories,
Workshops, Workplaces, and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or
Inspectors of Nuisances.

Premises.	Number of	
	Inspections.	Written Notices.
Factories (including Factory Laundries) .. .	138	16
Workshops (including Workshop Laundries) ..	233	29
Total	371	45

2.—DEFECTS FOUND.

Particulars.	Number of Defects	
	Found.	Remedied.
<i>Nuisances under the Public Health Acts :—</i>		
Want of Cleanliness	26	26
Want of Ventilation	4	4
Overcrowding .. .. .	..	..
Want of Drainage of Floors	1	1
Other Nuisances	6	6
Sanitary Accommodation { insufficient .. .. .	..	..
unsuitable or defective..	5	5
not separate for sexes..	3	3
<i>Offences under the Factory and Workshop Act :—</i>		
Illegal occupation of underground bakehouse (s. 101) .. .. .	..	..
Breach of special sanitary requirements for bake-houses (ss. 97 to 100) .. .. .	..	..
Other Offences (excluding offences relating to outwork which are included in part 3 of this Report) .. .. .	..	..
Total	45	45

3.—HOMEWORK.

Outworkers' Lists, Section 107.									
Nature of Work.	Lists received from Employers.						Addresses of Outworks		Inspections of Outworkers.
	Twice in the year.		Once in the Year				Receive'd from other Councils	For-warded to other Councils	
	Outworkers.		Lists.	Outworkers.					
	Lists.	Con-tractors		Work-men.	Con-tractors	Work-men.			
Wearing Apparel making, &c.) ..	2	1	14	1	1	1	..	..	..
Lace, lace curtains and nets ..	6	3	61	1	1	16	2	42	65
Furniture & Upholst'y ..	..	..	...	..	..	..	..	...	..
Total.. ...	8	4	75	2	2	17	2	42	65

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.		Number.
Bakehouses ..	..	21
Dressmakers ..	..	23
Milliners ..	..	13
Joiners, Cabinet Makers and Wood Workers ..	..	25
Tailors ..	..	19
Saddlers ..	..	4
Sugar Boilers ..	..	4
Smiths (tin and iron) ..	..	17
Boots and Clogs ..	..	19
Plumbers ..	..	9
Other Trades ..	..	41
Total number of Workshops on Register ..		195

C.—SANITARY ADMINISTRATION OF THE DISTRICT.

Hospital Accommodation.—Penmore Isolation and the Smallpox Hospital are the property of the Chesterfield Joint Hospital Committee, which consists of representatives of the Brampton and Walton, the Newbold and Whittington Urban District Councils, and the Corporation of Chesterfield.

The accommodation at Penmore consists of—

(1) Scarlet fever block. Two wards, measurements 48ft. 4ins. by 26ft. by 13ft., and 36ft. 3ins. by 26ft. by 13ft.; cubical capacity 16,325, and 12,252 cubic feet, Beds 14, with two small observation wards of one bed each.

(2) Enteric block. Two wards, measurements 33ft. 8ins. by 26ft. by 13ft., and 24ft. by 26ft. by 13ft.; cubical capacity 11,356, and 8,112 cubic feet. Beds 10.

(3) Isolation block. Three Wards, measurements 13ft. by 16ft. by 26ft., and 13ft. by 13ft. by 17ft., and 13ft. by 13ft. by 17ft.; cubical capacity 5,408, 2,873, and 2,873 cubic feet. Beds 5.

There are also an administrative block, steam laundry, disinfecting block with steam disinfecter, discharge room, ambulance and bedding van, sheds, stable, and mortuary. The hospital and grounds occupy about three acres of land, and there are nine acres in reserve for possible extension.

Population served : The hospital supplies the needs of the Borough of Chesterfield, population at 1911 census 37,406; the Whittington and Newbold Urban District, 1911 census 17,281; and the Brampton and Walton Urban District, census population 2,124; total, 56,811. When Penmore was first opened in January, 1905, the estimated population of the combined districts was 47,560.

Other accommodation : By arrangement with the North Derbyshire Hospital District, cases of infectious disease requiring isolation may, when accommodation for them is not available in the hospital serving the District to which they belong, be mutually transferred.

There is also the Newbold Smallpox Hospital, transferred in 1912 to Spital Smallpox Hospital site.

The Chesterfield and North Derbyshire Hospital and the Union Infirmary are also prepared to take in cases of enteric fever ; in the latter case, Poor Law patients are only admitted.

Diseases concurrently treated : During the greater part of last year all three blocks have been used for isolation of scarlet fever and diphtheria. Under a scheme submitted by the County Council it is proposed to erect a 14 bedded pavilion for the reception of advanced cases of pulmonary tuberculosis. The scheme is now under the consideration of the Hospital Committee.

Infected articles are removed, disinfected and returned free of charge on application being received from the sanitary officials of the constituent authorities.

Newbold Hospital, now removed to the Spital Small-pox Hospital site, provides accommodation for 22 patients in two wards, one of which is fitted with red glass windows. It has a small administration block, providing accommodation for the caretakers and one nurse, and a washhouse and mortuary. It has a water supply from the mains of the Chesterfield Gas and Water Board, and a small sewage disposal works on the bacterial purification system.

Disinfection of infected articles is done at Penmore Hospital.

The charge to constituent authorities, *i.e.*—Chesterfield Borough, Whittington and Newbold Urban District and the

Brampton and Walton Urban District, for the maintenance of patients in the Hospital is 1/3 per diem. For cases belonging to the North Derbyshire Hospital District 2/- per diem, for cases from the Union Workhouse 3/- per diem, and for cases from other districts 30/- per week.

Owing to the epidemic of scarlet fever which has prevailed over the whole neighbourhood during the last quarter of the year it became impossible to find sufficient isolation at Penmore Hospital for all cases requiring removal. On Oct. 7th, the Spital Smallpox Hospital was opened for the reception of convalescent cases of scarlet fever and closed on Oct. 28th. On November 6th it was again opened for the reception of cases belonging to the North Derbyshire Hospital Committee, and from Dec. 6th to Dec. 23rd, it was occupied by patients belonging to the Chesterfield Joint Hospital and the North Derbyshire Hospital Committees jointly. After Dec. 23rd to Jan. 27th, 1914, the Hospital was occupied by cases belonging to the Chesterfield Joint Hospital Committee alone. On Jan. 27th the Medical Officer of health for the Chesterfield Rural District found it necessary to remove a case which has been diagnosed as smallpox, this necessitated the instant removal of the scarlet fever cases back to Penmore Hospital, with the result that it was impossible for a few days to remove any cases, however imperious the need for Hospital Isolation might be. The utilisation of the Spital Hospital has undoubtedly relieved a very serious situation but it is open to the objection that the Hospital is not constructed for permanent occupation, there being no hot water laid on in the wards, no laundry and no disinfecter. Further, the expense of administration is very great and, finally, there is always the probability of the Hospital being required at a moment's notice for the isolation of Small Pox.

Work at Penmore Hospital, 1913.—The staff consists of a Non-resident Medical Officer, Matron, three Charge Nurses, one Assistant Nurse, and two Probationers; there are also a cook, a housemaid, two wardmaids, and a Non-resident Porter and Laundress.

The admission of diphtheria cases has been undertaken during the whole year for the first time. The total number of cases of scarlet fever and diphtheria admitted is the highest since the hospital was opened. The following table shews the number of cases treated since the Hospital was opened (Dec. 1904).

Year.	Scarlet Fever.	Diphtheria	Enteric.
1905	46	4	5
1906	34	3	12
1907	26	1	5
1908	40	2	14
1909	164	...	5
1910	85	...	8
1911	105	10	16
1912	187	...	...
1913	157	60	...

The authorities responsible for the cases are as follows :—

Constituent Authorities.	Scarlet Fever.	Diphtheria.
Borough	42	41
Whittington & Newbold U. D.	108	10
Brampton & Walton Urban Dist.	...	...
Penmore Nurses	1	1
<u>Other Authorities.</u>		
Chesterfield Rural District	4	4
Bolsover Urban District	..	1
Bakewell Urban District	2	3
Total	<u>157</u>	<u>60</u>

The cases of scarlet fever admitted were of a mild type there being only one death, this was due to the fact that the patient had been long suffering from tuberculosis of both hips and was in an exhausted condition.

The cases of diphtheria were of all types. There were eight laryngeal cases requiring tracheotomy: of whom one died owing to the fact that the disease was complicated by measles, the remainder made good recovery.

Of the remaining three deaths one was removed from the Chesterfield & North Derbyshire Hospital suffering from severe broncho pneumonia, and two died a few hours after admission. The disease being in an advanced state and medical treatment too long delayed.

BACTERIOLOGICAL EXAMINATION.

Diphtheria.—The Borough is fortunate in having at its service the Laboratory maintained at Derby by the County Council. Dr. Barwise has on several occasions remarked that sufficient use of the aid afforded by a Bacteriological Examination is not made.

Thus in 1912 there were 41 cases of Diphtheria and 16 swabbings from the throat sent for examination. In 1911, 77 cases and 41 swabs; and in 1910, 47 cases and 66 swabs. During the last year with the co-operation of the Medical Practitioners of the Town 461 swabs were sent; of these 103 shewed the presence of the diphtheria Bacillus and 358 were negative. 81 swabs (63 positive 18 negative) were taken by Medical Practitioners mainly for diagnostic purposes, and 380 (40 positive 340 negative) were taken by the Medical Officer of Health and referred to Home contacts, School contacts, and clearance swabs taken at the end of the illness from those patients who had been isolated at home.

In addition to these there were 214 swabs taken at Penmore Hospital, 87 were for diagnostic purposes of which 33 were positive and 54 negative, and 127 were clearance swabs to determine whether the patient might with safety be discharged. Of these 16 were positive and 111 were negative.

Enteric Fever.—One specimen of blood was taken from a suspected case. This proved to be negative.

Sputum Examination.—Seventeen specimens were sent for the purpose of ascertaining whether the patient was suffering from pulmonary tuberculosis. Sixteen were positive and one negative.

Milk Examination.—Seventeen samples of Milk were sent for examination in respect of the presence of tubercle bacillus. They were all reported as negative.

D.—PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

TABLE II.
Cases of Infectious Disease notified during the year 1913.

NOTIFIABLE DISEASE.	Number of Cases Notified.							Total Cases Notified in each Locality.				Total Cases Removed to Hospital.
	At all Ages.	At Ages—Years.						1	2	3	4	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.						65 and upwards.
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Cholera, Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	132	2	18	89	15	7	11	1	11	20	26	75
Erysipelas	25	..	1	2	2	8	11	1	8	8	7	4
Scarlet fever	70	..	9	53	3	5	..	..	11	11	21	13
Typhus fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever	2	..	..	..	1	..	1	..	..	..	..	..
Relapsing fever, Continued fever .. .. .	..	..	..	..	1	2	..	..	..	..	..	..
Puerperal fever	3	..	..	..	..	..	..	..	3	..	..	..
Cerebro-spinal Meningitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Polio-myelitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis	112	2	4	22	28	43	11	2	31	32	20	29
Other forms of Tuberculosis	82	13	32	19	13	2	2	1	21	11	24	26
Anthrax	1	..	..	..	..	1	..	..	..	..	..	1
Totals	427	17	64	185	63	68	26	4	94	85	98	150

ISOLATION HOSPITALS :—Penmore Hospital, Chesterfield ; Small-Pox Hospital, Spital, Chesterfield.

The number of cases of infectious diseases notified was 427, compared with 383 for the year 1912.

The deaths were 75 inclusive of 65 from tuberculosis. During the year other forms of tuberculosis was added to the list of notifiable diseases. The number of deaths from the non-notifiable infectious diseases, *i.e.*, measles, whooping cough, influenza, diarrhœa, respiratory diseases, was 184.

Smallpox.—No case occurred for the eighth year in succession.

During the year smallpox has been imported into nearly all the large seaports of the Kingdom, but has not often made its way inland. There has been no large outbreak in the country. The danger to be apprehended is from persons of the vagrant class and habitués of common lodging houses who, on the occurrence of a case in their immediate neighbourhood, instantly change their quarters in the hope of avoiding any irksome restrictions, and may already be infected. With this principle in view, on the occurrence of a case within "tramping" distance of Chesterfield, a copy of the following letter has been sent to the Chief Constable, the Master of the Workhouse, and the keepers of the eleven common lodging houses in the Borough :

Dear Sir,

I beg to inform you that smallpox has occurred at, and should be much obliged if you could let me know the names of persons from that district applying for lodgings in your house.

It would be advisable in future, in any case of suspicious illness among your lodgers, to let me know as soon as possible in order that the matter may be investigated.

I am,

Yours truly.

The vaccination returns for the various parts of the country continue to show a decrease in the number of persons successfully vaccinated. At present, by great efforts on the part of the Port Sanitary Authorities, the spread of the disease has been prevented. Year by year the cordon of vaccinated persons around any case of smallpox becomes less and less effective as a protection against the further spread, and those of us who think the danger small may find a rude awakening in the near future. The Royal Commission, after seven years' deliberation, reported unanimously in favour of vaccination. While it is true that the State provides vaccination, it does not do its duty, in that exemption may be obtained by a simple declaration. The simplest and cheapest method of avoiding an epidemic of smallpox is the thorough vaccination and re-vaccination of the whole population. Our smallpox hospitals could then fulfil some more useful function than that of lying idle for seven years in expectation of an epidemic which they may be totally incapable of dealing with.

Erysipelas—There were notified 26 cases of erysipelas ; there were no deaths.

Scarlet Fever.—70 cases were notified, as compared with 188 in 1912, and a decennial average of 147. They composed 40 females and 30 males, Houses infected, 56.

The age distribution was as follows :

	1-2	2-5	5-10	10-15	15-20	20-25	25-30	30-35	Ttl.
Male...	1	4	13	8	2	—	1	1	30
Female—		4	26	6	1	—	1	2	40

The Ward distribution was as follows :—

WARDS.					C. & N.D.
	North.	South.	Central.	West.	Hospital.
Cases ...	10	21	25	13	1

As regards the class of house, 61 were through houses, 3 were single houses, 2 had no through ventilation, and two were back-to-back houses. Of the cases notified, 6 occurred in a 3-roomed house, 11 in a 4-roomed, 16 in 5-roomed, and 28 in 6-roomed houses, the remainder in larger houses. The sanitary accommodation was privy middens in 39 cases and water closets in 31 cases.

The probable source of infection was as follows :—

Infected by case discharged from Penmore Hospital ...	4
Direct contact with previous case in house ...	12
Contact with school case	18
Indirect contact, <i>i.e.</i> , with person who has been in contact but does not himself contract disease ...	2
Not traced	34

There were two deaths, one of which took place in Penmore Hospital.

The number of cases was half the decennial average of 147. The case mortality was 2·8%, as compared with a decennial average of 3·7%.

Diphtheria.—The year 1913 was marked by a severe outbreak of diphtheria, there being more cases notified than in any previous year for which records are available. The number of cases were three times the decennial average number, while the number of deaths was two-thirds of the average. The case mortality was at the rate of 3 per cent as compared with 6·8 per cent 1912, 13 per cent 1911, and 6·2 per cent in 1910.

The disease first made its appearance in epidemic form in the West Ward being probably introduced from the village of Holymoorside. There were three times as many cases in the

West Ward as in any other Ward. Diphtheria is peculiarly a disease of direct contact, the influence of school attendance being very marked. Thus out of a total of 89 cases attending Public Elementary Schools 62 were scholars at Old Road, Brampton St. Thomas', and Central Schools.

The number of cases notified is larger than would have been the case but for the extensive use made of Bacteriological aids to Diagnosis. Thus 67 children presented themselves at or were sent by parents to the Education Offices on account of sore throat, of these 8 swabs were returned as positive.

A further aid in following up cases has been the information given by the School Attendance Officers and the School Teachers as to causes of absence in suspected cases. Thus of 13 cases to which my attention was drawn, seven were found to be either suffering from diphtheria or to have a positive swab. The information obtained on my visits was handed on to the Medical Attendant who notified the case. If the parents failed to call in a Medical Attendant, the cases were notified by myself. There were five deaths, one of which was that of a non-resident brought into the Chesterfield and North Derbyshire Hospital for tracheotomy. I attribute the low mortality to the extensive use of antitoxin, the prompt isolation at Penmore of severe cases, and early diagnosis. There is no doubt that no case of diphtheria should die of that disease provided antitoxin treatment is given early enough. The procedure in a case of diphtheria is as follows:—

(1) **School Case.**—The school is visited and the children who sat next to the child notified are inspected and swabs taken of their throats, on an average 8 such children are examined. 113 children were examined of which 11 shewed the presence of the diphtheria bacillus. Those who are carriers, *i.e.*, children who have no symptoms but who have positive swabs

are excluded from school and seen again each week until a negative swab is obtained. The schoolroom is disinfected by spraying walls, floors, desks, writing boards, pencils and blackboards, with 1 in 100 formalin solution.

(2) School Cases and others.

(A) Case removed to hospital. All the other children at home are swabbed and excluded for a period of 14 days. If any one of them prove to be a carrier, all are excluded until a negative swab is obtained. The room occupied by the patient is disinfected by Formalin vapour. The patient is not discharged from Penmore until two successive negative swabs are obtained from the throat and nose.

(B) Case isolated at home. When the request for disinfection is received from the Medical Practitioner in charge of the case, the throats of the other children in the house are swabbed as above, generally the swab from the patient is taken by the Medical Attendant. In this case the disinfection includes removal of bedding to the steam disinfector at Penmore. In future with the additional staff at Penmore it will be possible to steam disinfect bulky articles in every case of infectious disease whether isolated at Penmore or at home.

Houses infected 126, Cases 132, deaths 5.

1 of the deaths occurring at home, 1 in the Chesterfield and North Derbyshire Hospital, belonging to Bolsover; and 3 in Penmore, 2 of which were removed into Penmore from the Chesterfield & North Derbyshire Hospital.

The age distribution of the cases is as follows :—

	1-2	2-5	5-10	10-15	15-20	20-25	25-30	30-35	Over 35	Ttl.
Male	4	7	29	14	7	1	1	1	—	64
Female	2	7	38	9	4	2	3	1	2	68

The ward distribution is as follows :—

North Ward.	South Ward.	Central Ward.	West Ward.
20	26	11	75

As regards the class of house, 126 were through houses, 2 were single houses, all had through ventilation.

Of the cases notified one occurred in a 3-roomed house, 22 in 4-roomed, 43 in 5-roomed, and 53 in 6-roomed houses, the rest occurring in larger houses.

The probable source of infection was as follows :—

Direct contact with previous case in house ...	...	12
Contact with School cases	... ..	34
Indirect contact	... ..	13
Not traced	... ..	73

Privy middens were the sanitary accommodation in 77 cases, and W.C's. in 55 cases.

Monthly Incidence of Scarlet Fever and Diphtheria.

1913	Scarlet Fever	Diphtheria.
January	2	3
February	2	3
March	1	4
April	5	7
May	4	5
June	9	18
July	5	10
August	2	9
September	11	11
October	3	16
November	15	13
December	11	33
	<hr/>	<hr/>
	Total 70	132
	<hr/>	<hr/>

Schools attended by diphtheria and scarlet fever cases were as follows:—

School	Average Attendance	Scarlet Fever Cases	Diphtheria Out Cases.
Derby Rd. (Girls)	229	... 4	... 6
Vicar Lane	256	... 10	... 1
Old Road	369	... —	... 16
Derby Rd. (Boys)	173	... 2	... 5
St. Thomas	291	... 1	... 12
Trinity	263	... —	... —
Hasland C. of E.	343	... —	... 1
Christ Church	157	... 1	... —
Central	870	... 12	... 13
Hasland (Eyre St.)	236	... —	... 7
St. Helen's ...	643	... —	... 1
Hipper Street ...	590	... 8	... 2
Brampton ...	988	... 2	... 21
St. Mary's ...	298	... 1	... 3
Spital ...	50	... 6	... 1
Grammar School	—	... 1	... —
Girls' High School	—	... 1	... —
Private Schools	—	... —	... 1
Cases not attending School but having other members of house attending ...	... }	... 13	... 23
Cases in which there are no children from house of school age ...	... }	... 8	... 19
		Total	70 ... 132

TABLE.

Showing the Number of Cases of and Deaths from
Infectious Diseases during recent years.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Average 10 years	1913
Notifiable Diseases.												
SMALLPOX :												
Cases ...	43	6	53	..	..	..	..	..	..	..	10.2	..
Deaths	1	..	1	..	..	..	..	..	..	..	0.2	..
DIPHTHERIA & MEM- BRANOUS CROUP												
Cases ..	41	37	19	19	17	39	115	47	77	44	45.5	132
Deaths	7	10	3	2	..	11	10	3	10	2	5.8	4
ERYSIPELAS :												
Cases ..	18	32	34	39	40	42	21	28	46	23	32.3	25
Deaths	..	..	..	1	1	1	..	2	2	2	0.9	..
SCARLET FEVER :												
Cases ...	51	291	116	63	53	68	272	104	97	188	147.6	70
Deaths	..	11	8	2	2	2	1	5	4	8	4.3	2
ENTERIC FEVER :												
Cases ..	22	46	15	17	8	23	10	10	8	3	16.0	2
Deaths	3	10	4	5	3	5	1	1	1	1	3.4	2
PULMONARY TUBERCULOSIS	Not Notifiable						28	51	52	122	..	112
	28	30	29	31	30	35	47	25	44	41	34.0	42
PUERPERAL FEVER :												
Cases ...	1	..	2	3	2	2	6	3	4	1	2.5	3
Deaths	1	..	..	1	..	..	..	1	..	..	0.3	2
CEREBRO SPINAL FEVER & ACUTE POLIOMYELITIS :	Not Notifiable									2	..	..
	..	..	..	..	..	..	..	..	..	..	0	..
OTHER TUBERCU- LAR DISEASES }												
Cases ..	Not Notifiable						..	..	..	..	..	82
Deaths	19	20	15	23	10	30	29	15	16	15	19.2	23
Non-Notifiable Diseases.												
DEATHS ONLY :												
DIARRHŒA AND ENTERITIS }	38	72	26	44	27	41	27	36	86	14	42.2	47
MEASLES ..	10	2	7	4	9	7	9	8	36	2	12.2	29
WHOOPING COUGH	8	7	6	8	10	9	2	6	5	12	7.2	1
RESPIRATORY DISEASES }	78	66	84	66	89	107	83	70	88	85	81.6	105

Table Shewing Comparative Rates of incidence of Principal Zymotic Diseases.

	Estimated Population in the Middle of 1912.	SMALL-POX.		SCARLET FEVER.		DIPHTHERIA.		ENTERIC FEVER.		PUERPERAL FEVER.		ERYSIPELAS.	
		Cases.	Rate per 1,000.	Cases.	Rate per 1,000.	Cases.	Rate per 1,000.	Cases.	Rate per 1,000.	Cases.	Rate per 1,000.	Cases.	Rate per 1,000.
COUNTY OF DERBY.													
Administrative County ...	569966	...	...	2740	4·81	902	1·58	118	0·21	31	0·05	346	0·61
County Borough of Derby	124544	...	...	238	1·91	147	1·18	19	0·15	9	0·07	127	1·02
Aggregate of Boroughs and Urban Districts...	292599	...	...	1202	4·11	542	1·85	77	0·26	18	0·06	209	0·71
Aggregate of Rural Districts	277367	...	...	1538	5·54	360	1·30	41	0·15	13	0·05	137	0·49
Chesterfield Borough...	38078	...	...	72	1·80	133	3·49	2	0·05	5	0·13	25	0·66

Enteric Fever—This disease continues to show a steady abatement. The experience in Chesterfield is the same as in all parts of the country; that is, that the prevalence of enteric fever is more susceptible to sanitary improvements than any other disease.

There were two cases notified of which one was a nurse engaged in attendance on a case in the rural district and came home ill. The second was a doubtful case not supported by an examination of the blood. Both cases died.

Puerperal Fever. There were three cases notified and two deaths. The cases were duly reported by the Health Visitor to the County Medical Officer of Health (the officer of the Local Supervising Authority) and the appropriate action taken viz., suspension of the midwife until her effects were disinfected, and disinfection of the bedding, and room of the patient.

Measles.—Measles is not a notifiable disease, but by arrangement with the School Attendance Officers and Teachers, notification is made to me of all infectious and contagious diseases coming to their knowledge. 133 cases were thus notified. This does not, of course, represent all cases. There has been a serious epidemic of measles during the year causing twenty nine deaths as against two last year, 36 in 1911, and a decennial average of 12·2. Two of the deaths were those of infants under one year. 17 were those of children of one and under two years of age. Six were those of children of 2 and under 5, and four were of children 5 and under 15. From the enquiries made by the Health Visitor it seems that no precautions against spreading the disease had been adopted by the parents. Instructions both verbal and by leaflets were given as to treatment of those infected and as to precautions to be taken in the 133 cases

visited. School closure was resorted to in the case of the Infant Departments of the Central, St. Helen's, Spital and Hasland (Church of England) Schools.

Diarrhœa, Enteritis and Gastritis.—There were 49 deaths from this disease during the year. 33 under the age of 1 year, 14 under the age of 2 years, 2 over 2 years.

23 were males, and 26 females. The ward distribution is as follows :—

Central	...	...	...	22
North	...	...	...	6
South	...	...	...	7
West	...	...	...	14

Methods of Feeding.—7 were entirely breast fed, 5 partly breast fed and partly bottle fed, and 30 entirely bottle fed. Of the bottle fed, 11 were fed on condensed milk; the others on cow's milk and various foods; 7 on an adult mixed diet.

Season.—The deaths occurred in months of July (2), August (8), September (24), October (12), November (3)

19 out of the 49 cases occurred in houses having water closets, and 30 in houses having privy middens.

The influence of the housing conditions is well shewn in that 22 out of 49 deaths occurred in the Central Ward where houses are most closely aggregated together, and where the more insanitary conditions exist. The best means for presenting this heavy mortality from diarrhœa are (1) conversion of privy middens into water closets, (2) enforcement of bye-law with regard to weekly removal of manure, (3) daily flushing of courts and alleys, (4) education of parents as to value of breast feeding and in the case of bottle fed children, of strict cleanliness of food and bottle.

Anthrax.—Two cases of this disease were notified from the Chesterfield & North Derbyshire Hospital, one of which did not belong to the Borough. The disease was contracted on a farm outside the Borough boundary. The Chief Constable of the County, and the Medical Officer of Health for the district concerned were informed, precautionary measures being taken by them.

E.—PREVALENCE AND CONTROL OVER TUBERCULOSIS.

Deaths from Tuberculous Diseases.

Year.	Phthisis. Pulmonalis.		Other Tuberculous Diseases.		Totals.
	Males.	Females.	Males.	Females.	
1901	27	23	19		69
1902	18	11	20		49
1903	19	9	19		47
1904	18	12	20		50
1905	13	16	15		44
1906	15	16	23		54
1907	14	16	10		40
1908	20	15	30		65
1909	24	23	29		76
1910	15	10	15		40
1911	23	21	16		60
1912	18	23	15		56
1913	26	16	15	12	69
Totals	250	211	258		719

The year 1913 has been marked by two important advances in the campaign against Tuberculosis. First, the Public Health Regulations as to Tuberculosis, dated February, 1913, have made all forms of Tuberculosis, in addition to Pulmonary Tuberculosis, notifiable. Secondly, the Tuberculosis Dispensary, established by the County Council, was opened at the beginning of the year, and the services of the Tuberculosis Health Visitor have been available during the period.

Judging from the number of notifications and of deaths, there is no appreciable progress being made in combating this disease. On the other hand, there is a vast amount of educational work done both by the Tuberculosis Health Visitor, and at the Dispensary.

The number of cases notified during the year is as follows :—

Tuberculosis. Cases notified in 1913. Forms A. & B.

LOCALIZATION OF DISEASE.	Age 0-1	Age 1-5	Age 5-15	Age 15-25	Age 25-45	Age 45-65	65 and over	Total
PULMONARY.	2	4	22	28	43	11	2	112
OTHER FORMS:—								
Bladder ..	...	...	..	...	...	1	..	1
Testicle ..	...	...	...	1	...	...	...	1
Eye ..	...	...	1	...	...	...	...	1
Bowels ..	5	7	...	1	...	...	...	13
MUSCLES—								
Abscess of Leg ..	..	1	..	...	...	..	...	1
Abscess of Abdominal Walls ..	...	...	...	..	1	...	...	1
SKIN—								
Lupus ..	...	...	3	1	...	...	...	4
MEMBRANES—								
Cerebral Meninges ..	..	1	2	...	...	...	...	3
Peritoneum ..	2	...	...	1	...	...	...	3
BONES —								
Spine ..	...	2	1	2	...	...	1	6
Femur ..	...	1	1	...	...	..	..	2
Radius ..	...	...	...	1	...	..	...	1
Carpals ..	...	...	...	...	1	...	...	1
Metacarpals ..	...	...	1	...	...	...	...	1
Tarsals ..	...	1	...	1	...	...	...	2
Metatarsals ..	...	...	1	...	...	..	...	1
JOINTS—								
Hip ..	...	5	3	1	...	1	..	10
Knee ..	...	...	2	...	...	..	..	2
GLANDS—								
Mesenteric ..	3	7	1	1	...	..	...	12
Cervical ..	3	6	3	2	...	...	...	14
Femoral ..	...	1	..	...	...	...	...	1
Facial ..	...	...	...	1	...	..	...	1
TOTALS ..	15	36	41	41	45	13	3	194

The following particulars relate to 200 cases, some of whom were notified in previous years, but have not been visited until 1913.

1,164 visits were paid, 200 of which were first visits, and 964 re-visits.

The types of disease were as follows:—

	TOTAL.	DEATHS.	REMOVALS.
Lungs... ..	128	21	6
Bones and Joints ...	26	2	..
Bowels... ..	19	8	...
Glands... ..	11	...	...
Skin	5	...	...
Others	11	3	...
Totals	200	34	6

The occupations of the cases are shewn below :—

	Pulmonary.	Other Forms
Professional and their subordinate services	6	...
Domestic Offices or Services ...	23	1
Commercial Occupations	4	2
Conveyance of Men, Goods, and Messages	3	1
Agriculture... ..	1	...
In and about Mines and Quarries	6	...
Metals, Machines, Implements, and Conveyances	5	2
Precious Metals, Jewels, Watches, etc.	1	...
Buildings and Works of Construction	2	...
Wood, Furniture, Fittings, and Decorations... ..	2	...
Brick, Cement, Pottery, and Glass	2	...
Skins, Leather, Hair, and Feathers	2	...
Paper, Prints, Books, and Stationery	7	2
Textile Fabrics	2	1
Food, Tobacco, Drink, and Lodging	1	...
Gas, Water, Electricity, and Sanitary Service... ..	2	...
Other undefined Workers and Dealers	1	1
School Children	27	18
Labourers	8	...
Unoccupied... ..	23	44
Total	128	72

Of these, 31 were able to work full time, and 11 part time, the remainder (excluding the 45 school children), were unable to work.

Seven cases were receiving Poor Law relief, twenty-two were insured persons, and three were being supported by relatives. The average length of residence, ranging from a few days to 40 years, was from one to three years.

The housing Conditions are summarised below.

Housing Defect.	Number of cases of Disease of Lungs	Number of cases of Other forms.
Sanitary ...	95	58
Back to Back House ...	9	4
No through ventilation	3	1
Dampness ...	14	3
Dirt ...	2	1
General insanitary condition	5	5

Ventilation.

Ventilation Good ...	96	51
„ Poor ...	20	16
„ Bad ...	12	5

Lighting.

Good ...	93	52
Poor ...	28	15
Bad ...	7	5

Number of living rooms.

More than three ...	2	—
Three ...	40	16
Two ...	80	55
One ...	6	1

Bedroom.

More than three ...	24	11
Three ...	50	35
Two ...	51	25
One ...	3	1

The above summary throws into strong relief the downward tendency of the Tuberculous patient with regard to housing. This is due of course to the financial disabilities which follow prolonged unemployment.

With regard to source of infection 70 cases of lung disease and 27 cases of other forms of Tuberculosis had a family history of the disease.

There was tuberculosis existing in the previous tenant of the house in three cases.

The duration of illness ranged one month to six years and averaged between one and three years. Roughly speaking, one out of three cases notified, die each year.

Of the 200 cases 30 were the heads of their families, 128 were dependants, and 42 were not dependants e.g. lodgers. The treatment obtained by the cases was as follows :—

(1) Own Medical Attendant	...	82
(2) Tuberculosis Dispensary	...	59
(3) Workhouse Infirmary	...	7
(4) Hospital.	(a) Inpatient	13
	(b) Outpatient	19
(5) No treatment	...	20
		<hr/> 200 <hr/>

The number of cases receiving Institutional treatment is seen in the summary of Form C. (Register of Notification by Medical Officers of Poor Law Institutions and Sanatoria of Patients who have been previously notified before Admission).

Name	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	Total
Lungs	1	11	8	26	5	51
Knee Joint	—	1	—	—	—	1
Lupus	—	1	—	—	—	1
Fingers	—	1	—	—	—	1
Hip	—	—	—	1	—	1
Glands of Neck	—	1	—	—	—	1
Peritonitis	—	—	1	—	—	1
Inguinal Glands	—	1	—	—	—	1
Total	1	16	9	27	5	58

The number of persons discharged from such institutions is seen in summary of Form D.

TABLE.

	5 and under	15 and under 25	25 and under 45	45 and under 65	Total.
Lungs ...	2	1	6	4	13

With regard to sleeping arrangements only 72 were able to have a separate room, and 37 a separate bed, sharing a room. 163 Patients were found on the first visit to have their windows open. The number increasing to 178 on the second visit. The remaining 22 being cases in the last stage of the illness.

On the visit of the Health Official instruction is given on simple rules of Hygiene as to separate sleeping accommodation, disposal of sputum, ventilation, exercise, etc. The medical attendant in charge advises as to whether treatment shall be obtained at the Dispensary, Hospital, or remain in his own care. Other persons in the house if at all unwell are advised to submit to examination, being possible early cases. School children in the house are sent up to the School Medical Officer if necessary, the examination of other contacts being undertaken by the Medical Officer in charge of the Dispensary.

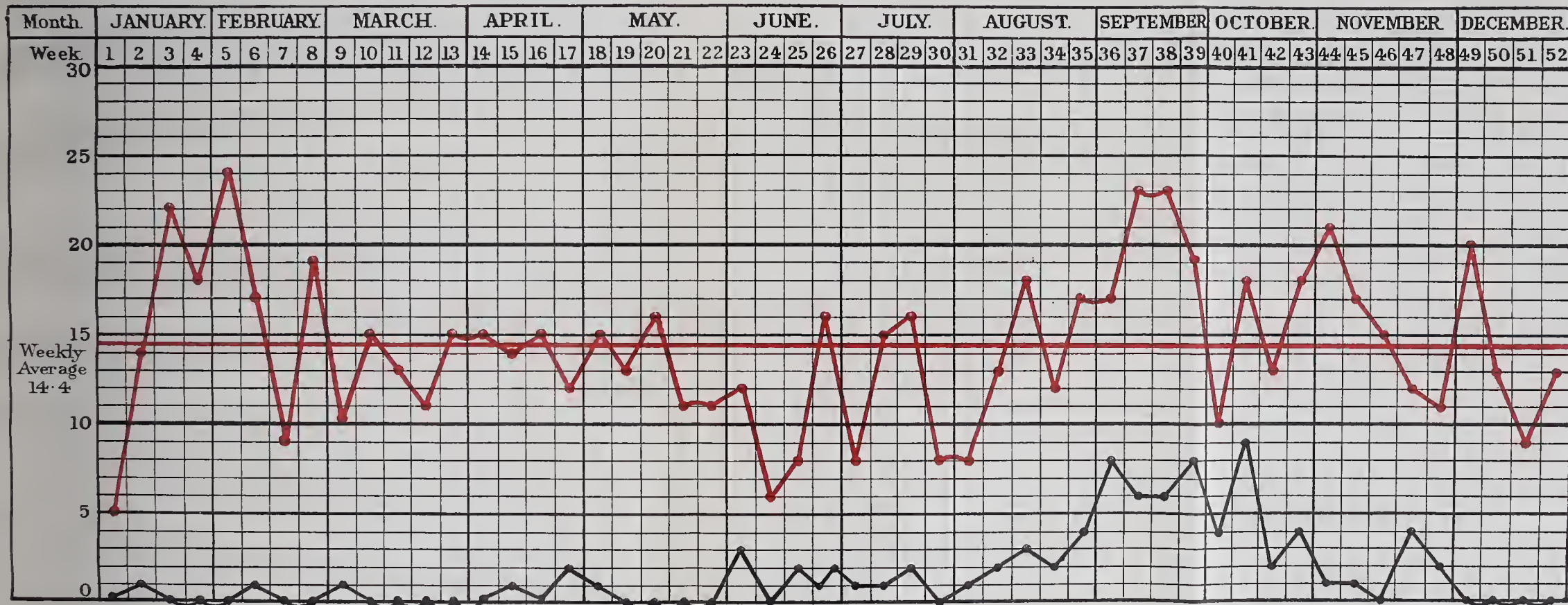
Disinfection of the house, and bedding was carried out on death of the patient in 34 instances. On removal to the Chesterfield & North Derbyshire Hospital in 26 instances, and on removal to the Workhouse Infirmary in 3 instances.

Death Rate.—The number of deaths registered as occurring in the Borough was 752, equal to a Crude Death Rate of 18·9 per 1,000 living, as compared with an average rate of 18·5 in the previous ten years, and 16·6 for 1912.

Ninety-seven occurred in the Chesterfield and North Derbyshire Hospital, 132 in the Union Workhouse, and 5 in Penmore Hospital.

BOROUGH OF CHESTERFIELD.

Chart showing the Gross Mortality during each week of 1913.



Note: The red line indicates the deaths from all causes registered in the Borough; the black line the deaths from the seven principal zymotic diseases.

These included :—

81 belonging to the Chesterfield R.D.,
 17 to Newbold and Whittington U.D.
 20 to the Clay Cross U.D.
 2 to the Blackwell R.D.
 10 to Bolsover U.D.
 1 to Clowne R.D.
 3 to Dronfield
 3 to Brampton and Walton U.D.
 1 to Mansfield
 1 to Worksop

Total foreign deaths, 139

The deduction of these, and the addition of those of 21 persons belonging to the Borough who died in public institutions outside it, gives 634, of which 362 were those of males and 272 those of females, as the number, corrected for public institutions only, to be attributed to the Borough. It is equal to a DEATH RATE of **16·0** per 1000. This figure multiplied by 1·0589, the factor for correction for age and sex gives 16·94. The rate in England and Wales was 13·4, that in 97 great towns 14·7, and in the 145 smaller towns 13·0.

The rate in the North Ward was 15·8, in the South 12·9, in the West 14·0, and in the Central 21·2. The causes of death are given in Table III.

There were 47 inquests held on deaths occurring in the Borough, the cases of death being certified by the Coroner as under : Residents 26, Strangers 21.

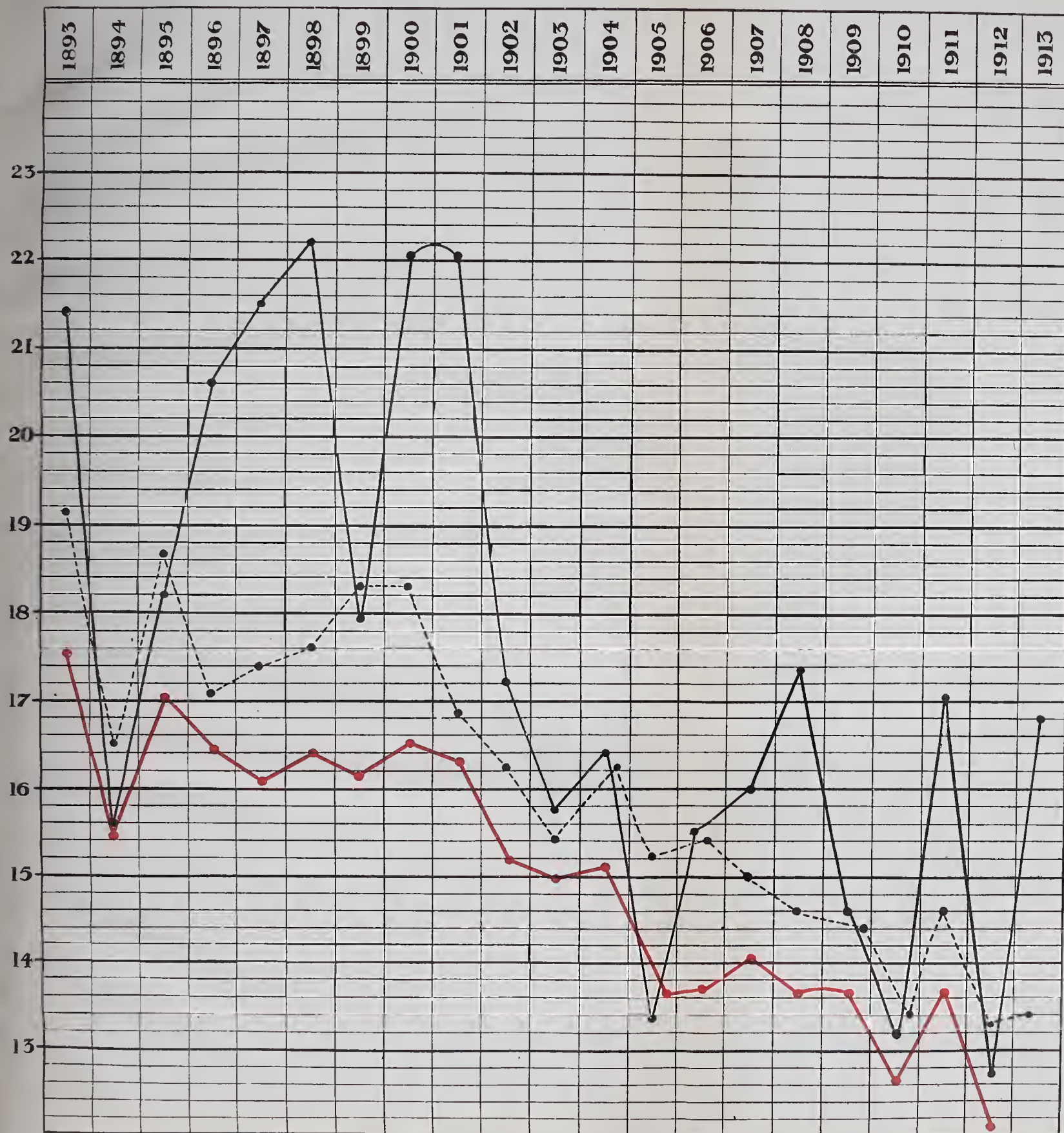
				Borough.	Strangers.
Found drowned	...	...	...	1	2
Suicide	...	...	...	3	—
Manslaughter	...	...	...	1	—
Burns	...	...	...	2	3

				Borough.	Strangers.
Measles ...	...	...	...	1	—
Diphtheria ...	...	...	...	1	—
Cancer ...	...	...	...	1	—
Overlying ...	...	...	...	2	—
Natural Causes	...	...	...	2	—
Insufficient Food	...	...	...	1	—
Scalds ...	...	...	...	—	2
Fall from horse	...	...	...	2	—
„ vehicle	...	...	...	—	1
„ roof	...	...	...	—	1
„ hayrick	..	...	...	—	1
Fall of crane	...	...	...	1	—
Fall of clay in clay pit	...	...	...	1	—
Suffocated ...	...	...	...	1	—
Colliery accidents	...	...	...	1	8
Run over by vehicle	...	...	...	5	2
Fell downstairs	...	...	...	—	1
				—	—
Totals	...	...	...	26	21

Interments were carried out at the Cemetery, St. Thomas' Church, Christ Church, and Elder Yard Chapel, the numbers being 347, 129, 42, and 3 ; total 521.

I should like to take this opportunity of thanking those gentlemen by whose courtesy the above figure were obtained.

CHART SHEWING THE DEATH RATES · 1893-1913



Continuous line Borough of Chesterfield.

Dotted line - England and Wales.

Red line - County of Derby.

Death Rate for Chesterfield, 1912, should be 13.12.

G.—MEANS FOR PREVENTING MORTALITY IN CHILD BIRTH AND INFANCY.

(1).—NOTIFICATION OF BIRTHS ACT, 1907.

Notifications received	...	...	...	...	1162
By Medical Practitioners	...	...	...	...	52
„ Midwives	...	...	...	...	1045
„ Parents	...	...	...	...	65
Number of Illegitimate Births...	...	...	...	...	72
„ „ Still Births...	...	...	...	...	54
„ „ First Visits...	...	...	...	...	1079
„ „ Re-Visits	...	...	...	...	1164
Sanitary Defects reported to Inspector of Nuisances	...	...	...	...	29

METHOD OF FEEDING INFANTS.

Number of Infants wholly breast fed	1036
-------------------------------------	-----	-----	------

These figures relate to infants visited from birth to a month old. In many cases after about the first month when the mother is up and doing her own work, the mother's milk is lessened, or entirely ceases, owing to want of sufficient nourishment, and improper feeding on the part of the mother.

If not instructed by the Health Visitor, the infant is usually fed on condensed milk (which generally contains no cream), thus causing rickets, debility, etc. Great benefit is being derived by the use of milk in the dried state, sterilized, and containing all the constituents of cow's milk. On the second visit of the Health Visitor, the mothers are

instructed as to the best methods of feeding the baby on the bottle, although every effort is made to induce mothers to feed their children at the breast.

Number of Infants wholly hand-fed from birth	...	26
" " " breast and hand fed after about		
first month	... ..	46
" " " wholly hand fed after about first		
month	... ..	26

The visitation of births is carried out in all parts of the town, not only the poorer parts where the infants are liable to neglect, but among the better districts where there are many young mothers who are pleased to receive information regarding the best methods of feeding &c. 83 Houses were not visited by request of the parents or Medical Attendant.

The object of these visits is to prevent mortality in infancy, which is largely due to ignorance and is capable of being reduced. Cases where infants are naturally fed do not need much attention except in cases of neglect and dirt. Particular attention is given to bottle-fed infants, when the parents are advised as to the most suitable food, and visits are paid frequently to ensure progress.

Now that the parents realize the real object of the Health Visitor's visits, she is more and more cordially welcomed in the homes, and her instructions are carried out more thoroughly.

During her visit the Health Visitor does not lose sight of the other small members of the family who, owing to lack of knowledge on the part of the mothers, are sometimes in a bad state of health due to improper food, want of fresh air, late hours, &c. Supervision of the older children is obtained through the school; cases of physical defect or of uncleanness are visited and the condition of the homes reported to the Sanitary Inspector, action being taken by him where necessary.

It is gratifying to note that improvement is taking place and that the parents appreciate what is being done to improve the health of their infants and the conditions of their home life.

The occupations of the parents are shewn below :—

General or local government of the country	10
Defence of country	2
Professional and their subordinate services	11
Commercial occupation	107
Conveyance of men, goods and messages	69
Agriculture	7
In and about mines and quarries ...	356
Metals, machines, implements and conveyances	113
Buildings and works of construction	36
Wood, furniture, fittings and decorations	26
Brick, Cement, pottery and glass ...	9
Paper, paints, books and stationery...	7
Food, tobacco, drink and lodging ...	10
Gas, water, electricity and sanitary Service	3
General labourer	132
Other undefined workers and dealers	264
	<hr/>
Total	1162

MOTHERS' WELCOME.

For some time social work among young mothers has been carried out at the Settlement. Early in October the mothers' welcome was combined with an infant consultation clinic. The purpose of this clinic is to advise as to the care and feeding of infants, who are bottle-fed, although other infants are seen if the mothers so wish. This institution meets once a week, the Medical Officer attending, the children are weighed and advice as to management given. In working class houses the difficulty with regard to bottle-fed infants

lies in the preparation of the milk. In order to ensure that each feed is perfectly good it ought to be prepared fresh, involving a good deal of trouble to a woman heavily burdened with other children and the cares of a household. There is also the difficulty of storage. To obviate this, several firms have now in the market preparations of dried milk which are sold in sealed tins at about the same price as ordinary milk. This milk possesses the advantage of cleanliness, freedom from Tubercle Bacilli and ease of storage. Dried milk known as "Cow & Gate" has been tried extensively since the opening of the clinic, and has been found very satisfactory. Up to the end of the year thirty-two children had made 91 attendances. The reasons given for bringing them were as follows :—

To be weighed	14
Diarrhoea	7
Not getting on... ..	8
Hernia	1
Meningitis	1
Kidney Disease	1

Miss Markham has very generously provided the cost of printing, the use of a room, and Miss Richards (the Warden) and Miss Patterson, have been most helpful. It is hoped that this institution may increase in usefulness during the present year.

(2) Inspection of Out-workers or Home-workers.

Lists of out-workers are sent in periodically by employers and the homes are visited twice yearly by the Health Visitor.

Of the Out-workers 48 are engaged in net mending.

„	7	„	felt slippers.
„	1	„	hosiery

The conditions were found to be satisfactory.

(3) Inspections of Midwives.

There are 12 midwives practising in the Borough, two are certificated. According to Rule 23, laid down by the Central Midwives' Board which secures a proper inspection of each midwife as to the Registration of cases, bag of appliances, her place of residence and an investigation of her mode of practice; visits are paid by the Health Visitor four times annually to the homes of the midwives and a report sent to the Local Supervising Authority, which is the Derbyshire County Council. The work and conditions of the midwives at the present time have been found quite satisfactory.

TABLE III.

Causes of, and Ages at, Death during the Year 1913.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	ALL AGES.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All Causes { Certified { Uncertified	613 21	148 8	60 ..	25 ..	23 .	19 ..	68 1	131 8	139 4	....
1. Enteric Fever	2	..	..	..	1	..	..	1	..	1
2. Small-pox .. ..	..	..	..	..	..	..	..	..	..	..
3. Measles	29	2	17	6	4	..	..	..	..	1
4. Scarlet Fever	2	..	..	..	2	..	..	..	..	1
5. Whooping Cough ..	1	1	..	..	..	..	..	..	..	..
6. Diphtheria and Croup	4	..	1	1	2	..	..	..	..	4
7. Influenza	2	..	..	..	..	..	..	1	1	1
8. Erysipelas .. ..	..	..	..	..	..	..	..	..	..	1
9. Phthisis (Pulmonary Tuberculosis)	42	1	..	1	..	11	20	9	..	20
10. Tuberculous Meningitis	7	1	1	3	2	..	..	..	..	4
11. Other Tuberculous Diseases	16	6	3	2	2	2	..	1	..	..
12. Cancer, Malignant Disease	36	..	..	..	..	..	4	20	12	11
13. Rheumatic Fever ..	..	..	..	..	..	..	..	..	..	1
14. Meningitis	4	1	1	1	..	..	..	1	..	3
15. Organic Heart Disease	54	..	..	..	1	..	12	22	19	23
16. Bronchitis	59	13	3	2	1	..	1	18	21	18
17. Pneumonia (all forms)	43	9	11	4	1	..	5	8	5	7
18. Other Diseases of Respiratory Organs	3	..	1	..	..	..	..	..	2	..
19. Diarrhoea and Enteritis	47	33	14	..	..	..	..	..	..	4
20. Appendicitis and Typhlitis	2	..	..	..	1	..	1	..	..	4
21. Cirrhosis of Liver ..	4	..	..	..	..	..	1	2	1	1
21A. Alcoholism	3	..	..	..	..	..	2	1	..	3
22. Nephritis and Bright's Disease	15	..	..	..	2	..	1	10	2	5
23. Puerperal Fever ..	2	..	..	..	..	1	1	..	..	4
24. Other Accidents and Diseases of Preg- nancy and Partu- rition	4	..	..	..	..	..	4	..	..	1
25. Congenital Debility and Malformation, including Premat- ure Birth	58	57	1	..	..	..	..	..	..	7
26. Violent Deaths, excluding Suicide	18	1	..	1	..	2	10	3	1	29
27. Suicide	4	..	..	..	..	..	1	2	1	..
28. Other Defined Diseases	143	22	1	4	4	3	5	31	73	76
29. Diseases ill-defined or unknown	30	9	6	..	..	..	1	9	5	4
TOTALS	634	156	60	25	23	19	69	139	143	234

Other Defined Diseases.—Table III. gives the number of deaths from various causes and among them 143 as the number of deaths from "Other defined Diseases." They are as follows :—

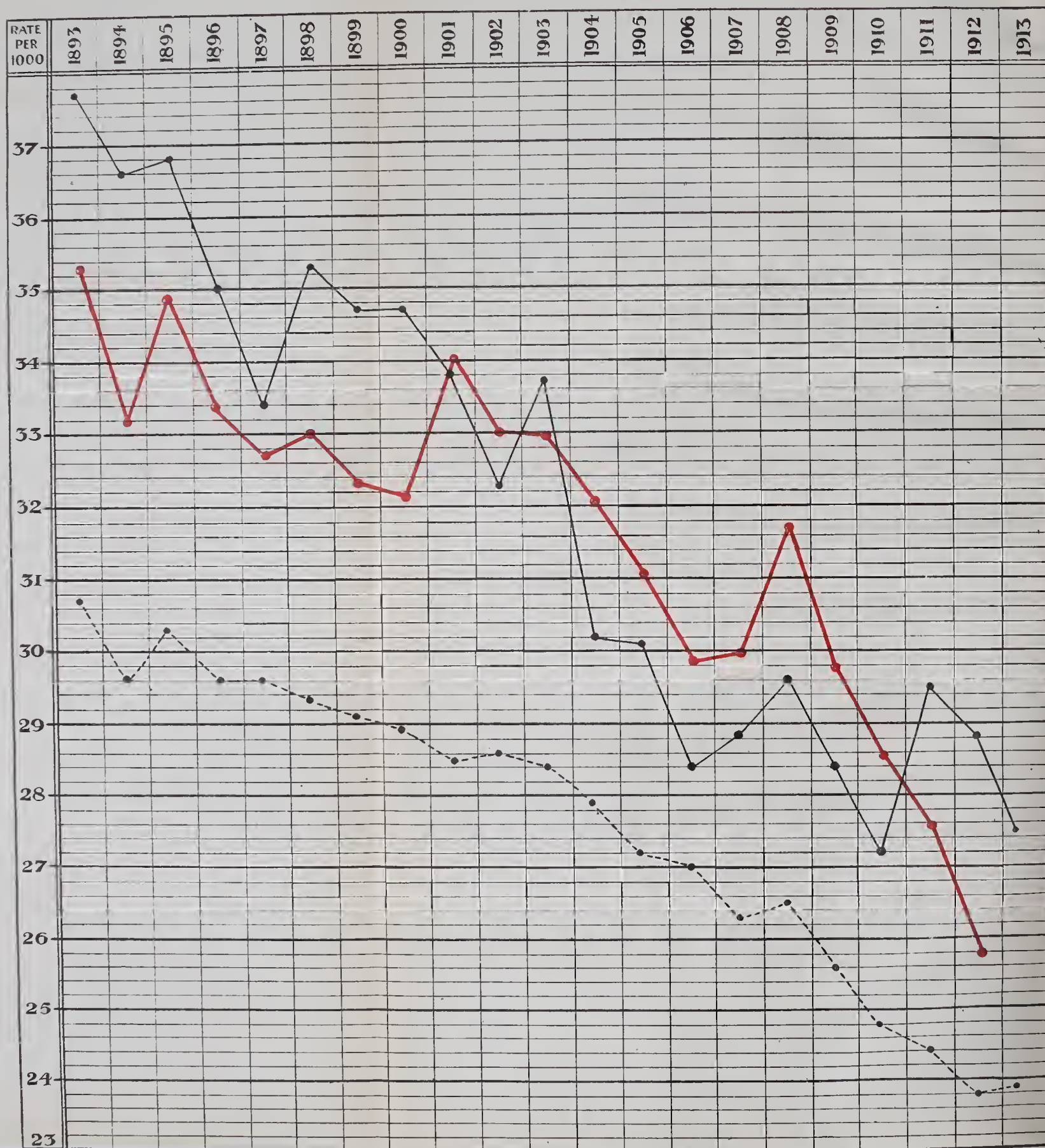
	Nett deaths at the subjoined ages of Residents whether occurring within or without the district.								
	All Ages	0—1	1—2	2—5	5—15	15—25	25—45	45—65	65 and over
CIRCULATORY DISEASES.									
Arterio Sclerosis....	3	..	..	..	..	..	..	1	2
Aneurysm	2	..	..	..	..	..	1	1	..
Endocarditis	1	..	..	..	..	..	..	1	..
Cerebral Hæmorrhage	23	..	..	..	..	..	1	9	13
Cyanosis	1	1	..	..	..	..	..	..	..
Umbilical Hæmorrhage...	1	1	..	..	..	..	..	..	..
Purpura	1	1	..	..	..	..	..	..	..
Gangrene	2	..	..	..	..	..	..	..	2
GENERAL DISEASES.									
Old Age	49	..	..	..	..	..	..	3	46
Rickets	2	1	1	..	..	..	..	..	..
Syphilis	3	3	..	..	..	..	..	..	..
Chronic Rheumatism ..	1	..	..	..	..	..	..	1	..
Diabetes	5	..	..	..	..	..	..	4	1
Icterus Neonatorum ..	1	1	..	..	..	..	..	..	..
Leucocythæmia	1	..	..	1	..	..	..	..	..
Pernicious Anæmia ..	1	..	..	..	..	..	..	1	..
Anæmia	1	..	..	..	..	..	..	..	1
Atelectasis	7	7	..	..	..	..	..	..	..
Exophthalmic Goitre ..	1	..	..	..	..	..	..	1	..
Injury at Birth	4	4	..	..	..	..	..	..	..
DISEASES OF NERVOUS SYSTEM									
Epilepsy	2	..	..	..	..	1	..	1	..
Chronic Dementia	1	..	..	..	..	..	..	..	1
General Paralysis	2	..	..	..	..	..	..	2	..
Chorea	1	..	..	..	1	..	..	..	..
Sciatica	1	..	..	..	..	1	..	..	..
Tetany	1	1	..	..	..	..	..	..	..
DISEASES OF DIGESTIVE SYSTEM									
Intestinal Obstruction ..	3	..	..	..	..	1	..	..	2
Gastritis	5	..	..	..	1	..	1	1	2
Duodenal Ulcer	1	..	..	..	..	..	..	1	..
Ulceration of Bowels ..	1	1	..	..	..	..	..	..	..
Cholecystitis	1	..	..	..	..	..	..	..	1
Diarrhœa & Enteritis ..	2	..	..	2	..	..	..	..	..
LOCAL DISEASES.									
Stone in Bladder.. ..	1	..	..	..	..	..	..	..	1
Tumour of Bladder	1	..	..	..	..	..	..	..	1
Cystitis	1	..	..	..	..	..	..	1	..
Stricture of Urethra ..	3	..	..	..	..	..	1	2	..
Otitis Media	1	..	..	..	1	..	..	..	..
Pharyngeal Abscess	1	..	..	..	1	..	..	..	..
Cellulitis	1	..	..	..	..	..	..	1	..
Laryngitis	1	..	..	1	..	..	..	..	..
Peritonitis	1	..	..	..	..	..	1	..	..
Multiple Abscess	1	1	..	..	..	..	..	..	..
Totals	143	22	1	4	4	3	5	31	73

Diseases ill-defined or Unknown.—In Table III. are given the number of deaths from all causes, and among them are 30 who died from diseases “ill-defined or unknown.” This category is inclusive of 21 uncertified deaths. They are as follows :—

	YEARS.								TOTAL.
	0—1	1—2	2—5	5—15	15—25	25—45	45—65	65 and over	
Convulsions ...	1	...	...	...	...	...	...	...	1
Marasmus ...	1	3	...	...	...	...	...	...	4
Teething ...	1	2	...	...	...	...	...	...	3
Natural Causes...	...	...	...	...	...	...	1	...	1
Premature Birth	1	1	...	...	...	...	...	...	2
Other Accidents and Diseases of Pregnancy ...	...	...	...	...	...	1	...	...	1
Heart Failure ...	1	...	...	...	...	...	6	4	11
Heart Disease ...	...	...	...	...	...	...	...	1	1
Alcoholism ...	...	...	...	...	...	1	...	...	1
Hyperpyrexia ..	1	...	...	...	...	...	1	...	2
Atelectasis... ..	2	...	...	...	...	...	...	...	2
Diarrhœa	1	...	...	...	...	...	...	...	1
Totals	9	6	...	...	...	2	8	5	30
Certified	1	6	...	...	...	1	...	1	9
Uncertified	8	...	...	...	...	1	8	4	21

Continuous line - Birth Rate Chesterfield.
Dotted line - Birth Rate England and Wales.
Red line - Birth Rate County of Derbyshire.

CHART SHEWING BIRTH RATES FOR YEARS 1893-1913.



Birth Rate.—The total number of births registered as occurring in the Borough was 1,104, of which number 569 were males and 535 females. Included among these are 16 belonging to other districts. There was also one birth allocated to the Borough by the Registrar General which occurred outside the Borough. Twenty-eight births occurred in the Workhouse, 16 of which belong to other districts. The births are distributed as follows, the Workhouse births belonging to the Borough being distributed to their proper wards :

	Male	Female	Ille- gitimate	Le- gitimate	Totals	Rate per 1000 liv'g
Central ...	119	143	18	244	262	26.3
North ...	134	101	21	214	235	25.1
South ...	148	114	10	252	262	27.3
West ...	159	171	13	317	336	28.5
	—	—	—	—	—	—
	560	529	62	1027	1089	27.5

The corrected number of births was 1,089, which is equal to a BIRTH RATE of **27.5** per 1,000 living, as compared with a decennial average number of 928 and a rate of 29.5. The accompanying chart shows the steady drop in the birth rate in the Borough and a similar drop in the rates of England and Wales and the County of Derbyshire. It should be borne in mind that we are fairly near the lowest attainable rate as regards the death rate, and further reductions cannot be hoped for, whereas the birth rate can be reduced to a rate at which the deaths outnumber the births.

		Natural Increase			
		Net Births	Net Deaths	Number	Rate per 1000
1903	... 28381	956	445	511	18.0
1904	... 28590	909	466	443	15.49
1905	... 28890	872	384	488	16.8
1906	... 29255	830	454	376	12.8
1907	... 29583	853	474	379	12.8
1908	... 30690	909	531	378	12.3

1909	...	31243	888	457	431	13.79
1910	...	31845	871	420	451	14.1
1911	...	37550	1101	642	459	12.2
1912	...	38100	1100	500	600	15.7
<hr/>						
Average.		31412.7	928.9	477.3	451.6	14.3
1913	...	39594	1089	634	455	11.5

Illegitimacy.—Illegitimacy has an important bearing on the question of infant mortality. The total number of illegitimate births was 74. After correction for those in the Union Workhouse and not belonging to the Borough was 62, equal to a rate of 57 per 1,000 births. The rates for 1912, 1911, 1910, 1909, and 1908 being 43.6, 50.8, 40.1, 42.8 and 44 respectively. That of 1910 being the lowest recorded for the Borough (as was the rate of 1909 at that time). The rate for the five years ending 1904 was 52.9, and for the five years ending 1909, 53.1. The rates of England and Wales for the same periods were 39.4 and 40.1 respectively.

The rate was 89 in the North Ward, 38 in the South, 39.0 in the West, and 68 in the Central.

H.—VITAL STATISTICS OF THE DISTRICT.

TABLE I.

Vital Statistics of Whole District during 1913
and previous years.

YEAR.	Popu- lation estimated to middle of each Year.	BIRTHS.			Total Deaths Registered in District.		Transferable Deaths.		Nett deaths belonging to district.			
		Uncorrected Number.	Nett.		Number.	Rate.	Of Non-Residents registered in the district.	Of Residents not registered in the district.	Under 1 year of age.		At all ages.	
			Number.	Rate					Number.	Rate per 1,000 nett births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1903	28381	976	956	33·7	536	18·9	92	1	160	167	445	15·7
1904	28590	926	909	31·6	568	19·6	102	0	155	171	446	16·3
1905	28890	896	872	30·1	481	16·6	101	4	104	119	384	13·3
1906	29255	850	830	28·4	568	19·4	117	3	151	182	454	15·5
1907	29583	872	853	28·8	582	19·7	111	3	159	186	474	16·0
1908	30690	936	909	29·6	655	21·3	127	3	137	151	531	17·3
1909	31243	896	888	28·4	565	18·1	116	8	124	140	457	14·6
1910	31845	889	871	27·4	515	16·2	105	10	138	158	420	13·2
1911	37550	1119	1101	29·3	768	20·4	146	20	194	176	642	17·1
1912	38100	1119	1100	28·8	612	16·6	133	21	106	96	500	13·1
Average for Years 1903 to 1912.	31412	947	928	29·5	585	18·5	115	7	142	153	475	15·1
1913	39594	1104	1089	27·5	752	18·9	139	21	156	143	634	16·0

Area of District in Acres
(‘and and inland water’) } ..2643.

Total population at all ages.....37,406
Number of inhabited houses.....7,609
Average number of persons per house 4·916 } At Census
1911.

Vital Statistics of separate Localities in 1913 and previous years in the Borough of Chesterfield.

NAMES OF LOCALITIES.	THE BOROUGH.				NORTH WARD.				SOUTH WARD.				WEST WARD.				CENTRAL WARD.				HOSPITAL.	UNION WORK-HOUSE.
	Population estimated to middle of each year.	Nett Births.	Nett Deaths at all Ages.	Nett Deaths under 1 year.	Population estimated to middle of each year.	Nett Births.	Nett Deaths at all Ages.	Nett Deaths under 1 year.	Population estimated to middle of each year.	Nett Births.	Nett Deaths at all Ages.	Nett Deaths under 1 year.	Population estimated to middle of each year.	Nett Births.	Nett Deaths at all Ages.	Nett Deaths under 1 year.	Population estimated to middle of each year.	Nett Births.	Nett Deaths at all Ages.	Nett Deaths under 1 year.	Population estimated to middle of each year.	Population estimated to middle of each year.
1903	28,381	956	445	160	10,248	245	130	34	8,923	295	158	56	9,210	416	157	70	9,210	416	157	70	...	...
1904	28,590	909	466	155	10,323	231	147	40	8,958	314	152	48	9,309	364	167	67	9,309	364	167	67	...	...
1905	28,890	872	384	104	10,440	246	109	28	9,000	280	127	39	9,450	346	148	37	9,450	346	148	37	...	...
1906	29,255	830	454	151	10,646	233	126	35	9,077	276	153	54	9,532	321	175	62	9,532	321	175	62	...	...
1907	29,583	853	474	159	10,425	262	158	53	8,706	279	163	51	9,901	312	153	52	9,901	312	153	52	95	456
1908	30,690	909	531	137	10,860	257	172	35	9,010	326	177	51	10,250	326	182	51	10,250	326	182	51	107	463
1909	31,243	888	457	124	11,003	240	145	30	9,110	282	149	42	10,500	366	163	52	10,500	366	163	52	107	463
1910	31,845	871	420	138	11,048	261	137	41	9,165	269	137	36	10,970	341	146	61	10,970	341	146	61	148	514
1911	37,550	1101	642	194	9,035	206	163	55	8,527	257	118	30	10,213	358	188	61	9,775	280	173	48	132	523
1912	38,100	1100	500	106	9,173	217	121	14	8,653	262	83	25	10,360	343	161	44	9,922	278	135	23	149	493
Average of Years 1903 to 1912.	31,412	928	475	142	10,320	239	140	36	8,912	284	141	43	9,975	349	164	55	9,945	262	211	46	...	...
1913	39,594	1089	634	156	9,318	235	148	37	9,213	262	119	36	11,118	330	156	37	9,945	262	211	46	133	456

TABLE IV.

Infant Mortality.—Nett deaths from stated causes at various ages under 1 year of age :—

CAUSES OF DEATH.				Under 1 week.	1—2 weeks.	2—3 weeks.	3—4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
All Causes {	Certified ...	...	...	31	7	4	3	45	34	32	18	19	148
	Uncertified ...	...	...	4	...	...	2	6	...	...	1	1	8
Small-pox ...				...	...	...	..	...	...	...	...	...	...
Chicken-pox ...				...	...	...	..	...	...	...	...	...	...
Measles ...				...	...	...	...	...	...	...	...	2	2
Scarlet Fever ...				...	...	...	...	...	...	...	...	...	...
Whooping-Cough ...				...	...	...	...	...	...	...	1	...	1
Diphtheria and Croup ...				...	...	...	...	...	...	...	...	...	...
Erysipelas ...				...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis ...				...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis ...				...	...	...	...	...	...	3	1	2	6
Other Tuberculous Diseases ...				...	...	...	...	...	1	...	...	...	1
Meningitis (<i>not Tuberculous</i>) ...				...	...	...	...	...	...	...	...	1	1
Convulsions... ..				5	...	...	...	5	2	1	1	...	9
Laryngitis ... ..				...	...	...	...	...	...	...	...	...	...
Bronchitis ... ..				...	...	...	2	2	5	3	3	...	13
Pneumonia (all forms) ...				...	...	...	...	...	3	3	...	3	9
Diarrhoea ... ..				...	...	...	...	...	9	5	7	8	29
Enteritis ... ..				...	...	...	...	...	2	1	1	...	4
Gastritis ... ..				...	...	...	...	...	...	...	...	...	...
Syphilis ... ..				...	...	...	...	...	2	...	...	...	2
Rickets ... ..				...	...	...	...	...	...	1	...	...	1
Suffocation, overlying ...				...	...	...	...	...	...	1	...	...	1
Injury at Birth				2	...	...	..	2	...	...	...	...	2
Atelectasis				6	...	...	...	6	...	...	...	...	6
Congenital Malformations ...				1	...	2	...	3	...	...	...	...	3
Premature Birth				19	3	1	...	23	1	1	...	...	25
Atrophy, Debility, and Marasmus				1	2	1	2	6	6	12	3	2	29
Other Causes				1	2	...	1	4	3	1	1	2	11
Totals				35	7	4	5	51	34	32	19	20	156

Nett Births in the year { Legitimate 1027
 { Illegitimate 62

Nett Deaths in the year { Legitimate Infants 138
 { Illegitimate Infants... .. 18

Infantile Mortality.—The return to normal weather conditions last summer resulted in the number of deaths of infants under one year of age approximating more nearly to the average.

There were 156 deaths, and an infantile mortality rate of 143 per 1,000 born, as against 106 deaths, and a rate of 96 for 1912, and a decennial average of 142 deaths and a rate of 153.

In the Borough, as is well known, two-thirds of the sanitary conveniences are of the privy midden type; that is to say, large collections of decaying animal and vegetable refuse, which form an admirable breeding place for flies. The presence of one privy midden in an otherwise sanitary neighbourhood serves as a breeding ground for flies, which carry their filth to food stored, according to an experiment conducted by the Medical Officers of the Local Government Board, within a range of 700 yards. Dr. Peck showed that in an outbreak of enteric fever in 1901, privy-midden houses furnished 72 per cent. of the deaths, while they formed only 63 per cent. of the total houses in the Borough.

Four deaths took place in the Workhouse, of which three were "strangers," and five in the Chesterfield and North Derbyshire Hospital, of which two were "strangers."

Allocating the remaining four to their proper Wards, the rate of infantile mortality in the respective Wards is as follows:—

WARD.	Nett Births.	Nett Deaths.	Infantile Mortality per 1,000 Births.
Central	262	46	173
North	235	37	157
South	262	36	137
West	330	37	112
Borough	1089	156	143

CHART SHEWING INFANTILE MORTALITY .. 1893-1913



Continuous line . . . Borough of Chesterfield.
Dotted line . . . England and Wales.
Red line . . . Derbyshire.

In considering Table IV, it should be remembered that the number of deaths from premature birth and congenital defects, and to a lesser extent the number of deaths from atrophy and marasmus, is not affected by the work of the Health Visitor, deaths from these causes being due to the pre-natal conditions of the mother, such as ill-health, lack of food, and working right up to the time of confinement. Deaths from convulsion are generally due to errors of feeding.

The following figures are abstracted from Table IV. :—

YEAR.	Premature Births and Congenital Defects.	Diarrhoeal Diseases.	Atrophy and Marasmus.	Convulsions.
1905... ..	24	19	16	12
1906	35	36	24	13
1907... ..	37	22	32	19
1908... ..	32	33	12	7
1909	40	24	23	4
1910... ..	29	28	27	9
1911... ..	29	68	33	15
1912... ..	32	11	21	10
1913... ..	28	33	29	9
Average of 9 years	31·6	30·3	23·9	10·7

